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INDEX

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OF THE

HOUSE OF REPRESENTATIVES.

FOR THE

THIRD SESSION OF THE FORTY-FIFTH CONGRESS,

1878-'79.

IN 18 VOLUMES.

VOLUME IX.—REPORT OF THE SECRETARY OF THE INTERIOR.

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INDEX TO HOUSE EXECUTIVE DOCUMENTS.

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SECRETARY OF THE INTERIOR;

BEING PART OF

THE MESSAGE AND DOCUMENTS

COMMUNICATED TO THE

TWO HOUSES OF CONGRESS

AT THE

BEGINNING OF THE THIRD SESSION OF THE FORTY-FIFTH CONGRESS.

IN TWO VOLUMES.

VOLUME I.

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THE BUREAU OF THE INTERIOR
WASHINGTON, D. C.

REPORT

SECRETARY OF THE INTERIOR

THE MINERAL AND GEOLOGICAL

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OF THE UNITED STATES OF AMERICA

IN TWO VOLUMES

VOLUME I

WASHINGTON, D. C.
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REPORT
OF
THE SECRETARY OF THE INTERIOR.

DEPARTMENT OF THE INTERIOR,
Washington, November 1, 1878.

SIR: I have the honor to submit the following summary of the operations of this department during the past year, together with such suggestions as seem to me worthy of consideration:

INDIAN AFFAIRS.

The report of the Commissioner of Indian Affairs is herewith submitted.

In my last annual report I sketched a plan of an "Indian policy," the principal points of which were the following:

1. The permanent location of the Indians on a smaller number of reservations containing a fair proportion of arable and pasture lands.
2. Encouragement of agricultural and pastoral pursuits by the furnishing of agricultural implements and domestic animals, and proper instructions by practical farmers.
3. The gradual allotment of small tracts of land to the heads of families, to be held in severalty under proper restrictions.
4. The discouragement of hunting, proper restrictions as to the possession of arms and ammunition by Indians, and a gradual exchange of ponies for cattle.
5. The extension of the laws of the United States over Indian reservations, to be enforced by proper tribunals, and the organization of an Indian police.
6. The labor of white men on Indian reservations as much as possible to be dispensed with, and proper discrimination to be made in the distribution of supplies and annuity goods and the granting of favors between Indians who work and those who live as idle vagabonds.
7. The establishment of schools for the instruction of Indian children in the English language, the elementary branches of knowledge, and especially in practical work.
8. Sufficient provision for the wants of the Indians until they become self-supporting.

This plan, put forth without any pretension to novelty, seemed to meet with general approval, as far as public opinion expressed itself,

and I firmly believe that its execution, if properly aided by Congress and not interfered with by the white population of the Western States and Territories, would, in the course of time, bring forth satisfactory results.

Considerable progress has been made in the execution of the plan above stated, as far as it depends on the action of this department and the officers under its direction. The consolidation of a number of agencies has been undertaken, with a view to a better location of the Indians, which will at the same time simplify the service, render a more efficient supervision possible, reduce the expenses of the government, and lessen the opportunities for fraud and speculation. As far as the appropriations made by Congress would permit, agricultural implements and domestic cattle have been furnished to Indian tribes, to set the Indians to work for their own support and to encourage industrious habits. An Indian police has been organized at twenty-two agencies, and from all of them favorable reports as to the working of the new system have been received. The labor of white men on Indian reservations has as much as possible been supplanted by Indian labor. Instructions have been given to discriminate in the distribution of supplies and annuities, which are not actual necessities, against individual Indians who show no disposition to work, thus discouraging idleness. Permission to send out hunting parties has been given only where without hunting the Indians would have been exposed to want. The rapid disappearance of game, however, in many parts of the western country will very soon stop this source of sustenance. The allotment of land among Indians on several reservations has been ordered and is in progress. The facilities of education have been extended as much as possible, and proper directions have been given for the instruction of Indian children in practical pursuits. Fifty Indian children, boys and girls, selected from different tribes, have been taken to the Hampton Normal and Agricultural Institute in Virginia, where they will receive an elementary English education and thorough practical instruction in farming and other useful work, to be sent back to their tribes after the completed course. Captain Pratt, who was intrusted with the selection of these children, and who performed his task in a very satisfactory manner, reports that a continually increasing interest in education is shown by the Indians, and that they would have sent thousands of children with him had he been able to receive them. The result of this interesting experiment, if favorable, may be destined to become an important factor in the advancement of civilization among the Indians.

The Indian service has been reorganized in several of its branches. It was found necessary to remove a number of agents on account of improper practices or lack of business efficiency, and great care has been taken in filling their places with new men. Where mistakes were found to have been made in the new selections they have been promptly rectified. Important changes have been made in the contract system and in

the methods of accountability; an active supervision has been exercised by inspectors and special agents; the detection of fraud has been followed by vigorous prosecution; and, on the whole, I feel enabled to say that the character of the service has been raised in point of integrity and efficiency.

I am, however, far from pretending that the present condition of Indian affairs is what it ought to be. The experience gained in an earnest effort to overcome difficulties and to correct abuses has enabled me to appreciate more clearly the task still to be accomplished. In my last annual report I stated frankly, and I have to repeat now, that, in pursuing a policy ever so wise and with a machinery ever so efficient, gradual improvement can be effected only by patient, energetic, and well-directed work in detail. An entirely satisfactory state of things can be brought about only under circumstances which are not and cannot be under the control of the Indian service alone. If the recurrence of trouble and disturbance is to be avoided, the appropriations made by Congress for the support of Indians who are not self-supporting must be liberal enough to be sufficient for that purpose, and they must be made early enough in the year to render the purchase and delivery of new supplies possible before the old supplies are exhausted.

2. The Indian service should have at its disposal a sufficient fund to be used, with proper accountability, at discretion in unforeseen emergencies.

3. The citizens of Western States and Territories must be made to understand that, if the Indians are to cease to be troublesome paupers and vagabonds, and are to become orderly and self-supporting, they must have lands fit for agriculture and pasturage; that on such lands they must be permitted to remain and to establish permanent homes, and that such a result cannot be attained if the white people insist upon taking from them, by force or trickery, every acre of ground that is good for anything.

The first two things can be accomplished by appropriate action on the part of Congress. The difficulties growing out of the continually-repeated encroachments by white people on the rights of the Indians may be lessened by the concentration of the Indians on a smaller number of reservations, but they can be entirely avoided even then only by the most energetic enforcement of the laws on the part of the general and local governments.

To this end it seems desirable that the southwestern tribes, whose present reservations appear insecure or otherwise unsuitable for their permanent settlement, should be gradually removed to the Indian Territory. The climate of the Indian Territory is congenial to them, while it has proved unwholesome to the northern Indians who were located there. The northwestern tribes will, in the course of time, have to be concentrated in similar manner on a few reservations east of the Rocky Mountains and on the Pacific slope.

To keep the Indians on their reservations and to prevent disturbance and conflicts, the Commissioner of Indian Affairs recommends the organization of a mounted body of "Indian auxiliaries," to be drawn from the young men of the various tribes, and to be under the command of the military authorities. I heartily concur in this recommendation. The young men enlisted in such an organization, paid by the government, will be withdrawn from the fighting element of the Indian tribes and be disciplined in the service of peace and order. It is a matter of general experience that Indians so employed can be depended upon as to loyal fidelity to the duties assigned to them. But the principal end of our Indian policy cannot be promoted by police measures alone. That end consists in gradually introducing among the Indians the habits and occupations of civilized life, by inducing them to work for their own support, by encouraging the pride of the individual ownership of property, and by educating the young generation; and no efforts should be spared to bring to bear upon them proper moral influences in that direction. Such efforts should not be sneered at as mere sentimental fancies, nor should they be discouraged by the assertion that success is impossible. The advance made by some Indian tribes is sufficient proof that a similar advance may be made by others. Whatever may be accomplished by the employment of force, it is certain that only as the Indians progress in the ways of civilization they will cease to be a troublesome and disturbing element.

I beg leave to submit the following remarks concerning several tribes whose conduct and condition is of especial interest:

THE SIOUX.

In accordance with the agreement made at the council held by the President with the Ogalalla and Brulé Sioux chiefs in September, 1877, the Red Cloud and Spotted Tail Sioux were permitted to choose locations of their own selection on their great reservation in Dakota. To keep them near the Missouri River would have been convenient for the transportation of supplies and annuities, and, in pursuance of an act of Congress passed at the last session, a commission, consisting of General D. S. Stanley, U. S. A., Mr. J. M. Haworth, and Rev. A. L. Riggs, accompanied by the Commissioner of Indian Affairs, was sent to the camps of the Red Cloud and Spotted Tail Sioux for the purpose of ascertaining whether their choice could not be so directed as to bring their selection of their permanent abodes into accord with the convenience of the government. The Indians, however, were found to be quite determined to move westward, and the promise of the government in that respect was faithfully kept. The Spotted Tail Sioux are now located 65 miles west of the Missouri River, at the mouth of Rosebud Creek, while the Red Cloud Indians settled down still farther west, on White Clay Creek, at the mouth of Wolf Creek.

It gives me pleasure to say that these Sioux so far have given evidence

of a loyal spirit, and that the rumors current for some time of a disposition on their part to break out in hostilities, proved entirely unfounded. When some of the Cheyennes who had escaped from the Indian Territory had taken refuge with Red Cloud, he sent word to the officers of this department that he held prisoners belonging to a tribe friendly to him, but hostile to the government, and that he was ready to give them up, which was faithfully done.

Great difficulty was encountered in sending supplies from the Missouri River to the new agencies. In consequence of a combination of transportation contractors to force the government to pay exorbitant prices, their bids were rejected, and the organization of wagon-trains, to be manned by Indians with their ponies, proceeded with, the same experiment having been tried on a large scale at another agency, at an earlier period this year, and having proved successful. The task to be performed by these wagon-trains between the Missouri River and the Sioux Agencies is a much larger and more difficult one, owing to the character of the country, and the circumstance that the grass has been burnt off the plains between the Missouri River and the new agencies, as rumor has it, by evil-disposed persons to bring about the failure of this experiment; but it has so far been successfully accomplished, and it is believed that the new Sioux Agencies will be sufficiently supplied during the winter season in that way.

The peaceful conduct of the Sioux during this year seems to justify the best hopes for the future.

THE PIMAS AND MARICOPAS.

A striking illustration of the perplexities the Indian service has sometimes to deal with is furnished by the present condition of the Pimas and Maricopas, in Arizona Territory. These tribes, numbering over 10,000, were located on a reservation, part of which was irrigated by the river Gila. Making use of the water of that river, these Indians were enabled to raise crops sufficient for their wants, so that the appropriations made by Congress for their support were very light. It may be said that these tribes were really self-supporting by their own labor and industry. Within a few years past mines were discovered on the upper course of the Gila River, and most of the water which formerly served to irrigate the fields of the Pimas and Maricopas was thus diverted for mining purposes, so that the water-supply no longer sufficed for the irrigation of the Indian lands under cultivation. The consequence was a failure of their crops, and, in fact, the impossibility of raising anything. The Indians found themselves compelled to leave their reservation and to seek new fields on the Salt River, where, however, white people set up claims to the land, and now loudly demand their removal. The result is that these Indians will starve on their reservation or be driven away if they attempt to settle down and cultivate the soil elsewhere, unless the government buys supplies to feed them, which would make

thriftless paupers of industrious and hitherto self-supporting tribes. It is difficult to see how they can be placed in the Territory of Arizona elsewhere, without arousing against them fierce opposition on the part of white people. Inspector Watkins was sent to inquire into their condition, and reports in favor of their removal to the Indian Territory, for which, as he thinks, an appropriation of \$25,000 will be sufficient. I concur in that recommendation.

THE BANNOCKS.

The report of the Commissioner of Indian Affairs gives an elaborate and very interesting account of the outbreak of the Bannocks last spring. It must be admitted that they were insufficiently supplied with food, which, however, was owing to an appropriation of money by Congress utterly inadequate to their wants. Formerly those Indians had supplied themselves in part by hunting, but in consequence of the Nez Percé war they were kept on their reservation, in order to avoid greater disorders. Thus they were deprived of that resource, and the money available for feeding them amounted only to less than 4½ cents a head per day. This created discontent among them; then a murder of a white man was committed by an Indian; the Indian was arrested, tried, and hung; the discontent grew into excitement; a military detachment attempted to disarm and dismount them, but with only partial success; and finally the events took place which appear in the Commissioner's report in a series of dispatches and letters, giving a full and circumstantial account of the causes, progress, and incidents of the trouble. To this account I would respectfully call your attention.

After a protracted pursuit and several encounters, the hostile Bannocks were dispersed, and most of them surrendered and are now held as prisoners. The military authorities have called upon the Interior Department to take them off their hands, and it is intended to transport them to the Yakama Reservation, and to put them under the charge of Mr. Wilbur, the most successful agent in the service.

THE NORTHERN CHEYENNES.

Another disturbance was created by a portion of the band of Northern Cheyennes, who, on the 9th day of September last, suddenly left their reservation, in the immediate vicinity of Fort Reno, in the Indian Territory, and marched northward, through Kansas and Nebraska, toward Dakota, committing many murders and other atrocities on their way. The causes which led to this trouble have been made the subject of special inquiry by the Commissioner of Indian Affairs, and his report is very complete and specific on that subject. It has been stated and widely believed that the Northern Cheyennes were driven to this outbreak by hunger, and that starvation was caused by a neglect on the part of the government officials to furnish them supplies according to treaty. From

the report of the Commissioner of Indian Affairs it appears that they received the same rations which were furnished to the Southern Cheyennes and Arapahoes on the same reservation; that they received those rations with the same regularity; and that their supplies were not only fully up to but rather in excess of the quantity provided by treaty, such quantity being amply sufficient to satisfy their actual wants, and that the only articles withheld from them at any time were flour at two issues only, in consequence of late appropriations, which deficiency was made good by extra beef; and coffee, sugar, and tobacco withheld, according to law, from those who refused to do any work, which law the agent in charge of those Indians properly considered himself bound as much as possible to execute.

It may be added that while a little less than 300 Northern Cheyennes broke out, 4,700 Northern and Southern Cheyennes and Arapahoes remained on the reservation perfectly quiet, having received the same treatment.

The report of the Commissioner also states, as the true cause of the outbreak, that the Northern Cheyennes had, very soon after their arrival on that reservation, shown a spirit of discontent, saying that they came to stay only as long as they liked it; that they insisted upon having their rations issued, not to heads of families, according to law, but to the chiefs of bands in bulk, which the agent very properly refused to do; that differences arose between the discontented element and the rest of the Indians on the reservation, which resulted in bad feeling; and that in consequence of these things finally the outbreak took place.

It has also been said these Indians were furnished with arms by the agent himself, or through his connivance with other evil-disposed persons. The report of the Commissioner states that the arms in the possession of these Indians consisted of about one hundred Springfield carbines taken from General Custer's command, and that with those arms they had a large quantity of ammunition; from which it would appear that the disarming of these Indians before they were located on the reservation near Fort Reno had been very incomplete. While in many other instances Indian outbreaks are traceable to the treatment they receive at the hands of the whites, it appears from the information quoted that in this case the outbreak was owing to the mischievous spirit of bad men among the Indians themselves, and their determination to return northward to their old hunting-grounds.

Nearly all of these runaway Cheyennes have been captured, or have surrendered, and are now held as prisoners by the military authorities. In the interest of general discipline, and in order to show the Indians that nothing can be gained by such disorderly conduct, it is thought best to return them to their reservation in the Indian Territory, after having given the civil authorities of the State of Kansas an opportunity to identify those who committed murders and other crimes while passing through that State, so that they may be dealt with according to law.

THE UTES.

Congress, at its last session, passed an act directing the Secretary of the Interior to appoint a commission to treat with the Utes, in the State of Colorado, for a cession of a large portion of their reservation, and their settlement upon White River, in that State, if such settlement should prove advisable. The commission was to report before final action should be taken. That report has not yet been rendered, but, as I am informed, will be ready for transmission to Congress during the coming session.

PUBLIC LANDS.

The report of the Commissioner of Lands, which I herewith present, gives an abstract of the operations of the General Land Office under the laws relating to the survey and disposal of public lands during the fiscal year ending June 30, 1878.

During the year ending June 30, 1878, public lands were disposed of as follows :

	Acres.
Cash entries	877, 555. 14
An increase over the previous fiscal year of 136,868.57 acres.	
Homestead entries.....	4, 418, 344. 92
An increase of 2,240,336.75 acres.	
Timber-culture entries.....	1, 870, 434. 18
An increase of 1,349,760.79 acres.	
Desert-land entries	310, 553. 05
This being the first entire year of the operation of the act of March 3, 1877.	
Agricultural-college scrip location.....	640. 00
A decrease of 640 acres.	
Military-warrant locations.....	84, 720. 00
A decrease of 12,480 acres.	
State selections approved :	
For school indemnity.....	50, 142. 59
For internal improvements	17, 420. 39
For agricultural colleges.....	24, 097. 40
For universities	44, 844. 43
For salt springs	24, 114. 56
For public buildings.....	29, 146. 33
For penitentiary	25, 226. 83
	214, 992. 53
An increase of 59,354.80 acres.	
Scrip locations :	
Sioux half-breeds.....	1, 715. 30
Chippewa.....	8, 860. 92
Valentine	324. 74
	10, 900. 96
Locations of scrip in lieu of lands embraced in private land-claims....	83, 143. 60
Approved or patented to States as swamp	202, 925. 85
A decrease of 211,492.51 acres.	
Certified for railroad purposes.....	603, 340. 65
A decrease of 94,451.31 acres.	
Certified for canal purposes	5, 628. 00
Total.....	8, 683, 178. 88

A quantity greater by 3,836,411.18 acres than that disposed of the preceding year. This increase is in the homestead entries for actual settlement and for timber culture.

The cash receipts were \$2,022,532.16, an increase of \$569,562.93.

During the year 8,041,011.83 acres were surveyed, making, with the quantity previously surveyed, 724,311,477 acres, and leaving yet to be surveyed 1,090,461,171 acres.

TIMBER LANDS.

In my last annual report I called attention to the necessity of rigorous measures for the suppression of depredations upon the timber lands of the United States. During the past year the employment of special agents for that purpose was continued, and proceedings against depredators instituted, as far as existing laws and the appropriations made by Congress would permit. I regret to say that at times the operations of the department were seriously hampered by the lack of available funds, but appropriations made on April 30 and June 20, 1878, rendered the employment of a larger number of agents possible, as well as the making of surveys in the preparation of evidence to sustain prosecutions. The report of the Commissioner of the General Land Office gives a detailed statement of the settlements made, verdicts obtained, and suits still pending.

It was to be expected that the measures taken by this department for the protection of the public timber lands would meet with stubborn opposition on the part of lumbermen and others directly or indirectly interested in those depredations. Here and there the proceedings of the special agents of the department were complained of as oppressive and otherwise improper, and in every instance careful inquiries into the facts were instituted. Such inquiries resulted almost uniformly in the vindication of the agents employed. When it was found that private property had been seized, together with timber unlawfully taken from the public lands, or with lumber manufactured therefrom—which was sometimes unavoidable—prompt restitution was ordered.

An officer of the Treasury Department, detailed for that purpose, was sent to the State of Louisiana, where charges of improper practices on the part of our timber agent had been preferred with particular urgency. The elaborate report rendered by that officer not only justifies the conduct of the agent of this department employed in that State, who while in the discharge of his duty fell a victim to the yellow fever, but it puts the extent of the depredations committed there and the necessity of their suppression in the clearest light. Complaint was also made that our efforts to arrest the wanton destruction of the forests in some of the mountainous Territories of the Northwest had inflicted great hardship upon the settlers there. But there is information in possession of this department showing that no such hardship resulted from the measures taken; that the price of firewood remained the same; that the settlers

were not hindered in providing for their actual necessities, and that the measures of the department were directed only against a class of persons who made the unlawful taking and selling of timber from the public lands in large quantities a regular business and a source of profit to themselves. In several States, especially in the South, the local authorities were resorted to by interested parties for the purpose of hampering and baffling the efforts of this department by a variety of expedients, in some instances not without effect. In spite of these difficulties it may be said that, in some parts of the country at least, the depredations on the timber lands of the United States have already been greatly limited in extent. But we cannot close our eyes to the fact that anything like complete success in suppressing these unlawful practices is impossible, unless the efforts made by this department for the protection of the public property meet with hearty co-operation on the part of the legislative branch of the government. Actual experience enables me to say that the want of such co-operation has been and will always be an encouragement to the depredators to persist in their lawless operations and to defy the authorities.

As to the importance of this subject I shall add but little to what I said in my last annual report. The disastrous consequences which always follow the destruction of the forests of a country are known to every well-informed man. These consequences will inevitably come upon us in a comparatively short period of time, considering the rapidity with which the timber growth of this country is being swept away, unless legislation be adopted systematically to arrest this indiscriminate spoliation. In accordance with the suggestions which, in this respect, I offered in my last annual report, a bill was introduced in the Senate (Senate bill No. 609) which provides that all timber-bearing lands, chiefly valuable for the timber upon them, shall be withdrawn from sale or other disposition under existing laws, and be held by the government with a view to preventing indiscriminate destruction and waste, and to the preservation of the young timber and the reproduction of the forests. The bill further provides ample means by which settlers on the public lands and miners can procure timber and firewood to supply their wants, with or without the soil, at minimum rates. It also provides for the sale of timber at reasonable prices for manufacturing purposes and for export. It finally provides for the appointment of a number of officers to execute its provisions under the direction of this department.

While I have no doubt that this bill may be improved in many respects, I adhere to the opinion that it is practicable and that its enactment into a law and its faithful execution would bring a large revenue into the Treasury, while averting from this country very disastrous experiences and securing great and lasting benefits to our people. This bill was not acted upon at the last session of Congress, and I again invite to it that attention which the importance of this great public interest merits.

While no legislation applicable to all parts of the country with regard

to this subject was had, two bills of a local character were passed, one "authorizing the citizens of Colorado, Nevada, and the Territories to fell and remove timber on the public domain for mining and domestic purposes," and one "for the sale of timber lands in the States of California and Oregon and in Washington Territory."

In the opinion of the Commissioner of the General Land Office, which is on record in this department, these two acts are more calculated to hasten the destruction of the forests in the States and Territories named than to secure the preservation of them. The first above-mentioned act provides in its first section—

That all citizens of the United States and other persons, *bona fide* residents of the State of Colorado or Nevada, or either of the Territories of New Mexico, Arizona, Utah, Wyoming, Dakota, Idaho, or Montana, and all other mineral districts of the United States, shall be, and are hereby, authorized and permitted to fell and remove, for building, agricultural, mining, and other domestic purposes, any timber or other trees growing or being on the public lands, said lands being mineral, and not subject to entry under existing laws of the United States, except for mineral entry, in either of said States, Territories or districts in which such citizens or persons may be at the time *bona fide* residents, subject to such rules and regulations as the Secretary of the Interior may prescribe for the protection of the timber and of the undergrowth growing upon such lands, and for other purposes: *Provided*, That the provisions of this act shall not extend to railroad corporations.

The second section makes it

the duty of the register and receiver of any local land office in whose district any mineral land may be situated, to ascertain from time to time whether any timber is being cut or used upon such lands, except for the purposes authorized by this act, within their respective land districts, and, if so, they shall immediately notify the Commissioner of the General Land Office of that fact.

Of this act the Commissioner of the General Land Office, in a letter addressed to the Secretary of the Interior, expresses the following opinion:

It is a fact well known that while almost all the timber-bearing land in those States and all the Territories, except Dakota and Washington, is regarded as mineral, only a small portion is so in reality. The effect of this bill will, in my opinion, be to prevent the survey and sale of any of the timber lands, or the timber upon the lands, in the States and Territories named, thus cutting off large prospective revenues that might and should be derived from the sale of such lands or the timber upon them. It is equivalent to a donation of all the timber lands to the inhabitants of those States and Territories, which will be found to be the largest donation of the public domain hitherto made by Congress. This bill authorizes the registers and receivers of the land offices in the several districts in which the lands are situated to make investigations without any specific directions from the Secretary of the Interior or the Commissioner of the General Land Office, to settle and adjust their own accounts, and retain from the moneys coming into their hands arising from sales of lands such amounts as they may expend or cause to be expended. This method will be found exceedingly expensive and result in no good. Experience has shown that the machinery of the land offices is wholly inadequate to prevent depredations.

The "Rules and Regulations" issued in pursuance of the first section of this act are to be found in the report of the Commissioner of

the General Land Office, herewith presented. These rules, drawn up "with a view to and the intention of preserving the young timber and undergrowth upon the mineral lands of the United States, and to the end that the mountain sides may not be left denuded and barren of the timber and undergrowth necessary to prevent the precipitation of the rain-fall and melting snows in floods upon the fertile arable lands in the valleys below, thus destroying the agricultural and pasturage interests of the mineral and mountainous portions of the country," make it the duty of registers and receivers to see to it that trespassers upon timber lands, not mineral, be duly reported, that upon mineral lands only timber of a certain size be cut, and that young trees and undergrowth be protected, and that timber be cut only for the purposes mentioned in the act. These "Rules and Regulations" will be enforced with all the power left to this department to that end, in order to save what may be saved. But I deem it my duty to call attention to the fact that, as set forth by the Commissioner in the letter above quoted, the machinery of the land offices is utterly inadequate to accomplish the object in view.

After a careful consideration of the above-named act and its probable effects, I venture the prediction that the permission given the inhabitants of the States and Territories named therein, to take timber from the public lands in any quantity and wherever they can find it, for all purposes except export and sale to railroads, will be taken advantage of, not only by settlers and miners to provide economically for their actual current wants, but by persons who will see in this donation a chance to make money quickly; that it will stimulate a wasteful consumption beyond actual need and lead to wanton destruction; that the machinery left to this department to prevent or repress such waste and destruction through the enforcement of the rules above mentioned will prove entirely inadequate; that as a final result in a few years the mountain sides of those States and Territories will be stripped bare of the timber now growing upon them, with no possibility of its reproduction, the soil being once washed off from the slopes, and that the irreparable destruction of the forests will bring upon those States all the calamities experienced from the same causes in districts in Europe and Asia similarly situated.

It appears to me, therefore, that the repeal of the above-named act, and the substitution therefor of a law embodying a more provident policy, similar to that of the above-mentioned Senate bill No. 609, is in the highest degree desirable. If the destruction of the forests in those States be permitted, the agricultural and pasturage interests in the mountainous regions will inevitably be sacrificed, and the valleys in the course of time become unfit for the habitation of men.

The act for the sale of timber lands in the States of California, Oregon, and Nevada, and in Washington Territory, passed by Congress at its last session, is, in a letter addressed to this department, commented upon

by the Commissioner of the General Land Office in the following language:

It is a bill of local and not general application to the timber lands of the United States, and adds one more to the already numerous special acts for the disposal of the public domain. The price fixed is too low, as much of the land is worth from five to fifty dollars per acre.

Under the provisions of the bill the timber lands will, in my opinion, be speedily taken up and pass into the hands of speculators, notwithstanding the provisions to prevent such result. The soil should not be sold with the timber where the land is not fit for cultivation. Only the timber of a certain size should be sold, and the soil and young timber retained with a view to the reproduction of the forests. The bill should have limited the sale of the lands to persons who have farms and homes within the State or Territory, and it ought to have required the purchasers to show affirmatively that they had need of timber for domestic uses.

The last clause of the second section will permit any person applying for a tract of timber land and securing a certificate from the register, to sell his right and interest therein immediately, and the purchaser, although it may have been obtained by perjury, may be entitled to a patent for the land.

Section 5 provides that any person prosecuted under section 2461 of the Revised Statutes of the United States, may be relieved of the penalty by the payment of two dollars and fifty cents (\$2.50) per acre for the land trespassed upon. This is objectionable, for the reason that the penalty fixed is altogether inadequate, and does not require the payment of costs of prosecution, which are often greater than the penalty to be collected. It should require that the trespasser should pay for the entire subdivision trespassed upon.

There can be no doubt that if this bill becomes a law it will be taken advantage of, by persons who want to make money quickly, to acquire the timber lands under its provisions at a very low price, and strip the mountain sides of their forest growth as rapidly as possible. How disastrous such a result will be to these States and Territories need not be detailed here.

I fully concur with the Commissioner of the General Land Office in his opinion thus expressed.

The traditions of a time are still alive when the area covered with virgin forest in this country was so great that the settler might consider the trees on the land he occupied as a mere difficulty to be overcome and to be swept out of his way. But circumstances have very materially changed. We are now rapidly approaching the day when the forests of this country will no longer be sufficient to supply our home wants, and it is the highest time that the old notion that the timber on the public lands belongs to anybody and everybody, to be cut down and taken off at pleasure, should give way. A provident policy, having our future wants in view, cannot be adopted too soon. Every year lost inflicts upon the economical interests of this country an injury, which in every part of the country will be seriously felt, but in the mountainous regions threatens to become especially disastrous and absolutely irreparable. We ought to learn something from the calamitous experiences of other parts of the world. If the necessity of such a provident policy be not recognized while it is time, the neglect of it will be painfully appreciated when it is too late. I am so deeply impressed with the importance of this subject, that as long as I remain entrusted with my present duties I shall never cease to urge it upon the attention of Congress.

PRIVATE LAND-CLAIMS.

In my last annual report I called your attention to the imperative necessity for some legislation by Congress to provide a way for the more speedy settlement of the private land-claims in the territory (except California) acquired from Mexico by the treaty of Guadalupe Hidalgo in 1848, and the Gadsden treaty of 1853, than is now provided by law. The reasons then given for asking such legislation were :

First. The slow progress made under existing laws in the settlement of said claims.

Second. The large number of claims still remaining unsettled, covering large tracts of land, which interfere with and retard the sale and disposal of the public lands.

Third. The want of harmony between the land system of the United States and the system under which said grants were made, which engenders strife and conflict between the grant claimants and settlers.

To remedy these evils and avert further difficulties, I recommended the passage of an act providing for the appointment of a commission with full power to hear and determine the validity of all such claims within the territory named, subject to an appeal to the United States courts.

No law was enacted by Congress at its last session for the more speedy settlement of said claims, although a bill was introduced in the Senate which, had it been enacted, would, in my opinion, have accomplished the desired object.

All the reasons which existed one year ago, making such legislation necessary, still exist, and the last is intensified by the disorders and bloodshed which have occurred in New Mexico during the last year, most of which are traceable directly to the conflicting interests of grant claimants and settlers.

RAILWAYS.

The following sections were accepted by the President at the dates given, and on the roads specified below :

On the 23d of January last, so much of the fifth section of the Southern Pacific Railroad of California, constructed under the act of March 3, 1871, as lies between the beginning of said section and the point where it crosses the western boundary of Fort Yuma military reservation, California; on the 13th of February, 1878, the tenth section of the main line of said road, 41.66 miles; on the 7th of May, 1878, part of the sixth, all of the seventh, and part of the eighth section of the said road, formerly known as the California and Oregon, now by consolidation part of the Central Pacific Railroad of California; and on the 11th of July, 1878, the seventh, eighth, and ninth sections of the Oregon and California Railroad.

BUREAU OF RAILROAD ACCOUNTS.

The act of Congress approved June 19, 1878, established a Bureau of Railroad Accounts in this department for the purpose of having all matters relating to indebted Pacific Railroad companies, and certain land-grant railroad companies taken cognizance of, examined, investigated, and reported upon. The following abstract of the operations of this bureau since its organization on July 1, 1878, is presented:

The Auditor of Railroad Accounts in making his first annual report states the immediate causes which led to the establishment of the bureau, and gives a review of legislation in regard to reports and investigations of subsidized railroads had and proposed since the incorporation of the Union Pacific Railroad Company in 1862. The government directors of the Union Pacific Railroad Company, in their report for the fiscal year ending June 30, 1877, strongly recommended the establishment of such a bureau in this department. In view of the condition of the affairs of all the Pacific Railroad companies, and the discussions relative to their indebtedness and operations, the recommendation of the government directors met with my full concurrence. The necessity that exists for some officer of the government, specially charged with such duty, to examine the books and accounts of these railroad companies, and to see that the provisions of the act approved May 7, 1878, for the establishment of a sinking fund in the national Treasury to provide for the payment of the indebtedness of the Union Pacific and Central Pacific Railroad Companies to the United States, are properly complied with, is fully confirmed by his report. Other reasons, however, demanded that it be made the duty of some officer of the government to familiarize himself with the affairs of these railroad companies, and to verify the correctness of their reports by personal examination of their books and records. The act of Congress approved June 22, 1874, by which the Secretary of the Treasury is directed to make demand upon the Pacific Railroad companies for the payment of 5 per cent. of their net earnings due and unapplied, made it a necessity that the amount thereof should be properly ascertained. Under the same act the Attorney-General has instituted suits against the Union Pacific Railroad Company and others, which are still undecided; the one, however, against the Union Pacific Railroad Company, involving an amount of nearly \$2,500,000, has reached the Supreme Court of the United States—the lower courts having given judgment in favor of the government, both as to date of completion of the railroad and as to the amount claimed on account of 5 per cent. of net earnings, and as soon as determined further settlements with all of these companies must be made and become the duty of some officer of the government. In this and the other suits of the same kind, the bureau just organized has been and will be able to give its assistance to the Department of Justice. It has also been of some service in the suit of the Atchison, Topeka and

Santa Fé Railroad Company *vs.* The United States, in which questions have arisen involving not only the rights of the United States under the condition attached to the land-grant, but also what constitutes "a fair deduction for the use of a railroad as a public highway by the United States free of toll or other charge," under the recent decision of the Supreme Court.

The gathering of facts and statistics bearing upon the establishment of sinking-funds for the payment of the indebtedness of the Kansas Pacific, Sioux City and Pacific, and the Central Branch Union Pacific Companies, as well as the question of "pro-rate and continuous operation" of the Pacific Railroads, and future questions in regard to cost and other matters which are likely to arise, all of which require special and careful investigation, will be better accomplished, undoubtedly, if intrusted to this bureau, the necessity of which in such regard has been long felt.

The geographical limits named in the act include all subsidized railroads, in whole or in part, west, north, or south of the Missouri River. This construction of the act is objected to by the counsel of some of the land-grant railroad companies.

The land granted by the general government to certain States for railroad purposes was in most cases granted with the condition that the road should be and remain a public highway for the use of the United States, free from toll or other charge for the transportation of any property or troops of the United States. This condition has been decided by the court of last resort to give to the United States only the free use of the roadway, not to include that of the equipment, rolling-stock, &c.; and the court awarded compensation for transportation over these roads subject to a fair deduction for the free use of the roadway under the law. The value of this condition, therefore, under the decision of the court, becomes a question for special inquiry and determination, involving the cost of construction, equipment, and other matters relating to the earnings and operations of a railroad.

Some companies, again, have made answer that their books are not kept in such a way as to enable them to furnish the required information. As to this, it has been, and will be for the future, the desire of this department to cause, if possible, no additional expense or trouble to the companies, so long as the information furnished satisfies the requirements of law, and is sufficient to enable an intelligent opinion to be formed in regard to their condition and operation.

The Union Pacific Railroad Company has rendered reports to the Auditor, under a reservation explained by a letter of the president of the company, a copy of which is given in the appendix to the Auditor's report. One thousand and thirty-eight and sixty-eight one-hundredths miles of this road were subsidized by an issue of bonds, in addition to the land-grant, of which five miles are leased to the Central Pacific Railroad Company and 1,033.68 miles operated by itself. The company owns

178 locomotives, 128 passenger-cars, 41 baggage, mail, and express cars, and 3,357 freight and other cars. The stock subscribed amounts to \$36,783,000; stock issued to \$36,762,300. The par value of shares is \$100. The subsidy bonds amount to \$27,236,512; the funded debt to \$51,116,200; total stock, subsidy bonds, and funded debt is \$115,115,012. Floating debt and interest accrued on subsidy and other bonds to June 30, 1878, amount to \$17,683,394.07; bonds and stocks of and investments in other companies amount to \$4,916,229.77; cash, material, and accounts due amount to \$10,195,160.15. The cost of road, equipment, and Missouri River bridge, as appears on the company's books, is \$120,627,064.69. The earnings for the year ending June 30, 1878, were: From passengers, \$3,259,223.42; from freight, \$7,573,105.21; miscellaneous earnings, \$1,951,812.59; total earnings, \$12,784,141.22. The operating expenses of the road were \$5,803,266.95, and the net earnings, \$6,980,874.27. The interest paid is \$3,402,891.58. The dividends paid amounted to \$2,204,700. Ten million seven hundred and sixty-four thousand nine hundred and forty-seven acres of land granted to this company remain unsold.

The Auditor further states that, under the laws in force to June 30, 1878, there will be retained probably of the amount due the Union Pacific Railroad Company, \$616,066.93, as one-half of the amount due for transportation, and \$352,330.17 as 5 per cent. of net earnings; total, \$968,397.10, applicable on account of subsidy bonds; the remainder of government transportation account for the year payable to the company being \$263,736.76; and the total government transportation being \$1,232,133.86.

If the sinking-fund act had been in force during the last fiscal year there would have been retained, \$616,066.93, one-half of transportation, and \$106,660.49, cash payment on account of 5 per cent. of net earnings; total, \$722,727.42, which, if deducted from the above amount of \$968,397.10, leaves \$245,669.68 as the amount to the disadvantage of the government under the new law, so far as a direct payment for the use of the United States is concerned, although \$616,066.93 being required for the sinking-fund, the total payment by the company becomes more than was required under previous laws by the sum of \$370,397.25.

From the statement of the Auditor it also appears that under the sinking-fund act the net earnings at the disposal of the company for the last fiscal year would have amounted to \$4,016,383.04, and that this sum would have enabled the company to pay interest on all its bonds, land-grant, sinking-fund, and bridge bonds, and dividends on par value of its capital stock of very nearly 6 per cent.

The Central Pacific Railroad Company has not complied with the law requiring reports to be made to the Auditor, and certificates as to their neglect to do so have been submitted to me. A report of this company, under section 20 of the act of 1862, and under the act of June 25, 1868, which have been repealed, was, however, received by this department,

and referred to the Auditor. From this report and other unofficial sources the following facts and figures are compiled: Miles subsidized, 860.66; miles operated, 2,074; number of locomotives, 227; passenger-cars, 235; baggage, mail, and express cars, 49; freight and other cars, 4,913; stock subscribed, \$62,608,800; par value of shares, \$100; stock issued, \$54,275,500; subsidy bonds, \$27,855,680; funded debt, \$55,045,00; floating debt, \$11,534,206.07, not including accrued interest on the subsidy bonds amounting to \$15,225,431.38; total debt, \$109,660,317.45; total stock and debt, \$163,935,817.45. Cost of road equipment and real estate, \$147,000,000; cash, material, sinking-fund accounts, \$7,827,987.33. For the year ending June 30, 1878, passenger earnings were \$5,367,663.20; freight earnings, \$10,160,055.11; no data given or obtainable as to miscellaneous earnings; total earnings, as far as reported, \$15,527,718.31; operating expenses, \$9,988,386.67; net earnings, \$5,539,324.64; interest paid (estimated), \$3,700,000; dividends paid, \$4,342,040; lands unsold, 11,300,000 acres. As there appeared a great discrepancy between the sworn statement of the president of the company as to net earnings given above, and one made up from the figures given in the printed report of the officers of the company to the stockholders, an explanation has been called for by the Auditor. Correspondence in regard to this discrepancy is given in the appendix to the Auditor's report. The facts that the floating debt of this company seems to be increasing over what it ought to be; that for the calendar year 1877 this increase amounted to \$5,310,169.37, and that the directory nevertheless saw fit to pay out over \$4,000,000 in dividends, while the annual interest charge had increased over \$300,000, are reported by the Auditor.

The Kansas Pacific Railway Company have rendered and are rendering reports in conformity with law. On November 3, 1876, Carlos S. Greeley and Henry Villard were appointed receivers of this company and operated the road until removed by the United States circuit court in October, 1878. The Auditor reports the business of this road as rapidly improving; and the following facts and figures are gathered from his report: Miles subsidized, 638.34; miles operated, 672.06; number of locomotives, 89; number of passenger-cars, 51; baggage, mail, and express cars, 17; freight and other cars, 1,323; stock subscribed, \$9,992,500; stock issued, \$9,689,950; subsidy bonds, \$6,303,000; funded debt, \$22,180,600; floating debt, \$4,755,010.22, not including \$1,915,356.94 accrued interest on subsidy bonds; total debt, \$35,153,967.16; total stock and debt, \$44,843,917.16; cost of road, \$34,359,540.66. For the year ending June 30, 1878, passenger earnings were \$698,710.45; freight earnings, \$2,348,388.86; miscellaneous earnings, \$252,938.50; total earnings, \$3,300,037.81; operating expenses, \$2,125,832.80; net earnings, \$1,174,205.01; interest paid, \$613,316.32; lands unsold, 4,803,933 acres.

The Denver Pacific Railway and Telegraph Company and the receiv-

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ers who have operated this road since April 2, 1878, have rendered the reports required from them. This company has suffered a considerable decrease in its gross earnings, in consequence of the opening of the Colorado Central, a branch of the Union Pacific Railroad. The following facts are reported: Miles subsidized, 105.89; miles operated, 105.89; number of locomotives, 6; passenger-cars, 4; baggage, mail, and express cars, 4; freight and other cars, 32; stock subscribed, \$4,000,000; stock issued, \$4,000,000; funded debt, \$2,350,000; floating debt, \$189,382.65; total debt, \$2,539,382.65; total stock and debt, \$6,539,382.65; cost of road, \$6,495,350. For the year ending December 31, 1877, passenger earnings were \$106,633.32; freight earnings, \$161,950.38; miscellaneous earnings, \$33,262.61; total earnings, \$244,727.97; operating expenses, \$141,093.74; net earnings, \$103,634.23; interest paid, \$111,167.87; lands unsold, 950,000 acres. Complete reports as to operations and affairs for the fiscal year ending June 30, 1878, were not received in time for this report.

The Central Branch Union Pacific Railroad Company has signified its intention to render reports. The following is from unofficial sources: Miles subsidized, 100; miles operated, 100; number of locomotives, 6; passenger-cars, 6; baggage, mail, and express cars, 3; freight and other cars, 127; stock subscribed, \$1,000,000; par value of shares, \$100; stock issued, \$980,600; subsidy bonds, \$1,600,000; funded debt, \$1,600,000; floating debt, including \$1,000,000 accrued interest on subsidy bonds, is \$1,567,800; total debt, \$4,767,800; total stock and debt, \$5,748,400; cost of road, \$2,548,707.36, to which should be added the discount on bonds and stock issued. For the year ending June 30, 1877, passenger earnings were \$40,409.87; freight earnings, \$130,819.27; miscellaneous earnings, \$25,815.12; total earnings, \$197,044.26; operating expenses, \$153,206.88; net earnings, \$43,837.38; interest paid, \$45,344.73; lands unsold, 116,165 acres. These figures differ somewhat from those given in the last annual report of the department. Business operations for year ending June 30, 1878, were not reported in time to be embodied in the Auditor's annual report.

The Sioux City and Pacific Railroad Company has fully and promptly complied with every requirement of the law. The statement as to this road shows: Number of miles subsidized, 101.77; miles operated, 106.82; number of locomotives, 13; passenger-cars, 9; baggage, mail, and express cars, 6; freight and other cars, 218; stock subscribed, \$4,478,500; par value of shares, \$100; preferred stock issued, \$169,000, drawing 7 per cent. interest per annum, secured by mortgage on the Missouri Valley connection; other stock issued, \$1,899,400; subsidy bonds, \$1,628,320; funded debt, \$1,628,000; floating debt, \$30,000, not including over \$900,000 accrued interest on subsidy bonds; total debt, \$4,186,720; total stock and debt, \$6,255,120; cost of road, \$5,337,627.41. For June 30, 1878, passenger earnings were \$83,600.83; freight earnings, \$197,309.18; miscellaneous earnings, \$89,755.35; total earnings, \$370,-

665.36; operating expenses, \$330,475.22; net earnings, \$40,190.14; interest paid, \$111,654.50.

The Texas and Pacific Railway Company rendered its customary report to the department on October 5, 1878, which was referred to the Auditor. This officer called for explanations as to the report, so as to bring the information therein contained within the requirements of the act of 1871, and repeated his requests for reports under the act of June 19, 1878. These explanations, it is understood, will be furnished by the company, but it has so far declined to report under the act of June 19, 1878. From the report and other unofficial sources the following is compiled for the year ending June 30, 1878: Miles subsidized, 443.86; miles operated, 443.86; number of locomotives, 49; passenger-cars, 32; baggage, mail, and express cars, 11; freight and other cars, 986; par value of shares, \$100; stock issued, \$7,018,500; funded debt, \$18,488,000; floating debt, \$1,255,113.60; total debt, \$19,743,113.60; total stock and debt, \$26,761,613.60; cost of road, \$26,540,239.61; passenger earnings, \$594,030.84; freight earnings, \$1,644,753.03; miscellaneous earnings, \$77,787.88; total earnings, \$2,316,571.75; operating expenses, \$1,448,329.66; net earnings, \$868,242.09; interest paid, \$659,461.89; granted lands unsold, 18,000,000 acres.

The Southern Pacific Railroad Company has referred the law and the requirements made under it by the Auditor to its law officers and has not made any report. The following facts and figures have been compiled from unofficial sources for the year ending June 30, 1877: Miles subsidized, 711.95; miles operated, 711.95; number of locomotives, 43; passenger-cars, 69; baggage, mail, and express cars, 10; freight and other cars, 1,024; stock subscribed, \$38,122,000; par value of shares, \$100; stock issued, \$36,763,900; funded debt, \$29,300,000; floating debt, \$994,861.03; total debt, \$30,294,861.03; total stock and debt, \$67,058,761.03; cost of road, \$66,495,837.04; passenger earnings, \$598,529.49; freight earnings, \$654,303.78; miscellaneous earnings, \$2,300,171.29; total earnings, \$3,553,004.56; operating expenses, \$1,724,174.41; net earnings, \$1,828,830.15; interest paid, \$1,817,449.50; lands unsold, 12,061,206 acres.

The Northern Pacific Railroad Company has made full and acceptable reports. The following facts are shown: For the year ending June 30, 1878, miles subsidized estimated at 2,000; miles operated, 555; number of locomotives, 48; passenger-cars, 22; baggage, mail, and express cars, 24; freight and other cars, 1,196; stock authorized, \$100,000,000; par value of shares, \$100; stock issued, \$68,438,543.11; floating debt, \$320,125.50; total stock and debt, \$68,758,668.61; cost of road, \$20,872,051.58; passenger earnings, \$318,745.82; freight earnings, \$745,517.28; miscellaneous earnings, \$80,502.61; total earnings, \$1,144,765.71; operating expenses, \$608,788.99; net earnings, \$535,976.72; lands unsold, 45,000,000 acres.

The Saint Louis and San Francisco Railway Company of Missouri,

purchaser of the Missouri portion of the Atlantic and Pacific Railroad, and successor of that company, has complied with the law and rendered reports. The following is compiled therefrom for the year ending December 31, 1877: Miles subsidized, 292.50; miles operated, 363.50; number of locomotives, 28; passenger-cars, 10; baggage, mail, and express cars, 8; freight and other cars, 738; par value of shares, \$100; stock issued, \$21,289,608; funded debt, \$5,278,982.26; floating debt, \$49,612; total debt, \$5,328,594.26; total stock and debt, \$26,618,202.26; cost of road, \$26,734,718.15; passenger earnings, \$230,242.57; freight earnings, \$1,023,909.89; miscellaneous earnings, \$69,791.30; total earnings, \$1,323,943.76; operating expenses, \$584,816.91; net earnings, \$739,126.85; interest paid, \$734,740.91, annual interest payment being \$549,340 in gold; lands unsold, 915,654 acres.

The Burlington and Missouri River Railroad Company in Nebraska at first complied with the requirements of the law, but, acting under legal advice, the president of this company referred further requests to the directors for a final decision.

The Oregon and California Railroad Company has complied with the law and rendered reports accordingly. The following facts are shown for the year ending June 30, 1878: Miles subsidized, estimated at 300; miles operated, 200; number of locomotives, 14; passenger cars, 11; baggage, mail, and express cars, 3; freight and other cars, 227; par value of shares, \$100; stock issued, \$20,000,000; funded debt, \$10,950,000; floating debt, \$800,000; total debt, \$11,750,000; total stock and debt, \$31,750,000; cost of road, \$5,422,958.32; passenger earnings, \$227,524.15; freight earnings, \$402,286.07; miscellaneous earnings, \$37,381.18; total earnings, \$667,191.40; operating expenses, \$396,000; net earnings, \$271,191.40; interest paid, \$158,775; lands unsold, 3,000,000 acres.

The Oregon Central Railroad Company has rendered reports to the Auditor. For the year ending June 30, 1878, the following is reported: Miles subsidized, 47.50; miles operated, 47.50; locomotives, 4; passenger cars, 2; baggage, mail, and express cars, 2; freight and other cars, 62; stock subscribed, \$5,000,000; par value of shares, \$100; stock issued, \$4,980,050; funded debt, first-mortgage bonds, \$4,695,000, issued and delivered to trustees as security for \$1,000,000 borrowed money; floating debt, \$1,182,507.58, including \$1,000,000 secured by first-mortgage bonds; total debt, \$5,877,507.58; total stock and debt, \$10,857,557.58; cost of road, \$1,201,927.97; passenger earnings, \$25,337.05; freight earnings, \$44,532.27; miscellaneous earnings, \$2,397.07; total earnings, \$72,266.39; operating expenses estimated at \$72,266.39; interest paid, \$98,000; lands unsold, 1,200,000 acres.

Of the railroad companies which have received grants of land from the United States through State or Territorial governments, the following have not rendered reports by reason of interruption of business during the past four months in consequence of the prevalence of yellow fever in the Southwestern States, viz: The Memphis and Little Rock

Railroad Company, the Vicksburgh, Shreveport and Texas Railroad Company, the managers of Morgan's Louisiana and Texas Railroad and Steamship Company.

The following have complied in a measure with the requests of the Auditor, viz: The Hannibal and Saint Joseph Railroad Company, the Leavenworth, Lawrence and Galveston Railroad Company, the Missouri River, Fort Scott and Gulf Railroad Company, the North Wisconsin Railroad Company, the Winona and Saint Peter Railroad Company, the Southern Minnesota Railway Company, and the Saint Paul and Duluth Railroad Company.

The following railroad companies are preparing to comply with the requests of the Auditor, viz: The Little Rock and Fort Smith Railway Company, the Memphis and Little Rock Railroad Company, the Atchison, Topeka and Santa Fé Railroad Company, the Chicago, Rock Island and Pacific Railroad Company, and the Missouri Pacific Railroad Company.

Four months only having elapsed since the establishment of the bureau, most of which time has been consumed in organizing and in correspondence with railroad companies, it became questionable whether any report of its operations could be made at so early a day, and in consequence it is necessarily incomplete.

The Auditor's report is accompanied by an appendix, containing statements and compilations of facts relating to the Pacific and land-grant railroad companies, the laws affecting them, official correspondence, statements of the affairs of the companies, their receipts, expenditures, and operations, the accounts between the United States and the Pacific Railroad companies, the condition of the respective land-grants, and other matters of general interest in respect to railroad companies.

It will be seen from Appendix C of the Auditor's report, that about 196,424,800.68 acres of land have been granted for railroad purposes, of which, to June 30, 1878, 31,014,496.7 acres were patented. The acts of Congress making these large grants were passed with conditions intended, in a measure, to repay the people for such valuable donations; but, until the passage of the act creating the Bureau of the Auditor of Railroad Accounts, the government had no certain way of ascertaining whether these conditions were complied with, nor was it possible to know what they were worth.

The recommendations of the Auditor in regard to legislation are worthy of consideration.

THE PRO-RATE QUESTION.

The suit of the Kansas Pacific Railway Company *et al. vs.* The Union Pacific Railroad Company, instituted January 21, 1875, in the United States circuit court of the district of Nebraska, commonly known as "the pro-rate case," has not been determined. In view of this fact, and the fact that legislation bearing upon this question is now pending in Con-

gress, and that much complaint continues to be made against the Union Pacific Railroad Company for non-compliance with the requirements of law in this respect, it is hoped that the whole subject will receive early consideration by Congress, so that some final settlement of these difficulties may be had.

THE GOVERNMENT DIRECTORS.

The report of the government directors of the Union Pacific Railroad Company has not yet been received, but it is understood that it will be shortly made, and will be laid before Congress during the present session.

PENSIONS.

The number of unsettled pension claims of all classes at the beginning of the year was 91,444, of which 49,369 were original Army invalid claims, 5,610 invalid increase; 32,969 original widows, dependent relations, and minors, 907 widows increase; 1,053 original Navy invalid, 65 invalid increase; 485 original widows, dependent relations, and minors, 1 widow increase; 448 survivors War of 1812, and 537 widows.

During the year there were 67,218 new pension claims of all classes filed, of which 18,812 were original Army invalid, 21,915 invalid increase; 6,661 original widows, dependent relations, and minors, 516 widows increase; 300 original Navy invalid, 182 invalid increase; 131 original widows, dependent relations, and minors, 14 widows increase; 2,789 survivors War of 1812, and 15,898 widows. There were filed in addition 291 claims for bounty land warrants. Besides these, 5,095 claims of the several classes which had been rejected were reopened for further consideration.

Of the new claims, 18,240 were under the act of March 9, 1878.

During the year, 43,370 pension claims of the various classes and 394 claims for bounty land warrants were settled.

The whole number of unsettled pension claims at the close of the year was 120,387.

As shown by an actual count in all the agencies, there were at the beginning of the year 226,643 pensioners on the rolls. At the close of the year there were on the rolls 223,998 pensioners, a decrease of 2,645.

Owing to the large number of 1812 claims, which will be settled within the year, it is probable that there will be a considerable increase in the number of pensioners during the current year.

The amount appropriated for pensions for the year ending June 30, 1878, exclusive of surgeons' fees and the salaries and fees of the agents for paying pensions, was \$27,850,000, of which \$26,530,792.10 were disbursed for pensions, leaving unexpended \$1,319,207.90.

For a more particular statistical account of the transactions of the Pension Bureau, reference is made to the Commissioner's annual report.

The special service division of the office investigated during the year 1,830 cases, resulting in a total saving to the government, by dropping

from the rolls the names of those not entitled to receive pensions, the rejection of cases presented in proper form but found to be without merit, the reduction of pensions already granted, and the refunding of money improperly collected by pensioners, with one year's pension added in each case, of \$402,096.95.

The total cost of the investigations to the fund appropriated for the expenses of the special service was \$38,235.80

In referring to this special work of his office the Commissioner says:

Considering the extraordinary opportunities for the successful prosecution of fraudulent or unmeritorious claims which exist under the present system of adjudication, in connection with the fact that the Commissioner of Pensions has no authority to go out and hunt for fraud, but is limited by the statute to the investigation of such cases only as suspicion attaches to in the usual routine of the office, the investigations of the last year, as well as those of the preceding year, furnish a very suggestive lesson. I am convinced that a great number of persons have been pensioned who had no just title, and that the number of that class is being constantly increased in the settlements which are now going on, and this must continue to be the case until some measure shall be adopted by which the truth of the parol testimony which is offered can be tested. No such test is possible under the present system.

The annual expenditure of so large an amount of public money should certainly have thrown about it all the safeguards that are attainable by improved methods of settlement and payment. The greatest care should be taken to establish beyond doubt the right of a claimant to pension money; for, once allowed, it becomes through a long series of years an annual tax upon the government.

The results of investigation into a limited number of claims which have attracted suspicion appear to justify the conclusion arrived at by the Commissioner, that the present system of examining the evidence on which pension is allowed is defective and ought to be corrected.

In two previous annual reports the Commissioner recommended the substitution of a corps of efficient surgeons, to be assigned by districts throughout the country and assisted by competent clerks, for the present unwieldy and unreliable system of medical examination, which requires the services of over 1,500 examining surgeons.

By the system proposed, the claimants and their witnesses would be brought face to face with the officers of the government, a more accurate knowledge would be received by the facts set forth, and more reliable data than can be now obtained would be secured for the settlement of claims. In his present report he states that another year's observation and experience have only tended to confirm his previous opinion that the change of system proposed is necessary and that it is both feasible and economical.

The magnitude of the interests involved commends this proposed system to the considerate attention of Congress. If on examination it is found to be an improvement on the present one, no time should be lost in securing the legislation necessary to the change.

The consolidation of pension agencies, which went into effect July 1,

1877, has proved satisfactory. Pensions are now paid at 18 agencies with equal promptness and less inconvenience than when the number was 58. A more uniform system of payment has been secured, at a reduction on salary account alone of \$142,000.

The Commissioner reports an increased efficiency in the clerical force of his bureau, and attributes it to the comparatively few changes in the *personnel* of the office. Merit has been regarded as the basis of retention and promotion, and this has tended to dispel the feeling of uncertainty and insecurity in relation to the tenure of office.

The Commissioner makes the following recommendations :

1. The amendment of section 4702 Revised Statutes, by adding a proviso, that when a widow remarries the children entitled to pension should be paid from the date of last payment to their mother.

Under the law as it now stands the children are entitled from the date of remarriage, so that through concealment of the fact subsequent payments may be made, which, although used for the support of the children, cannot be deducted from the amount found due them under the present law.

2. Repeal of section 4717 Revised Statutes, which bars the admission of claims not prosecuted to successful issue within five years from the date of filing, without record evidence from the War or Navy Department of the injury or disease which resulted in the disability or death of the person on whose account the claim is made.

It is claimed that this section works great hardship to many claimants, in whose cases the records are alleged to be incomplete or not in accordance with the facts.

3. The amendment of section 4698½ Revised Statutes, which prescribes that no increase of an invalid pension, except in cases of "specific disabilities," shall commence prior to the date of the medical examination upon which the claim is adjusted.

The application of this is attended by considerable confusion and often by injustice. It prevents an increase, in many cases covering a period wherein the disability was clearly in excess of the pension paid, or a low rate was allowed on the mistaken opinion of an examining surgeon or a misapprehension of the case by the Commissioner. The statute should be so amended as to extend to this class of claims the exception made in specific disability cases.

As the amendments commend themselves on the grounds of necessity and justice, I earnestly recommend them to the favorable consideration of Congress.

PATENTS.

The report of the Commissioner of Patents shows a gratifying increase of the business of the office for the year ending June 30, 1878.

The number of original applications received for patents was 19,657; for design patents, 722; for reissue of patents, 627; for registration of trade-marks, 1,536; for registration of labels, 727; caveats filed, 2,737.

Patents granted, including reissues and designs, 14,100; trade-marks registered, 1,505; labels registered, 492; forfeited for non-payment of final fee after allowance, 668.

The total receipts from all sources \$734,887.98, an increase over last year of \$19,923.25. Total expenditures, including \$50,000 for repair of models, \$665,906.02; leaving an excess of receipts over expenditures of \$68,981.96.

The treaty between the United States and Great Britain for the reciprocal protection of the marks of manufacture and trade in the two countries, proclaimed by the President July 17, 1878, has already produced good results, mutually advantageous to the citizens of both nations.

During the year duplicate copies of all British patents have been received. The contribution is a valuable one, especially to the examining corps of the office.

The Commissioner reports the restoration of 18,563 models damaged by the fire of September, 1877. A careful record has been kept of the repaired models, showing the condition of each when taken up for repair.

The work has been skillfully done and reflects credit on those employed.

The necessity of additional room is daily growing more apparent. The various divisions are suffering from this cause, some of them lacking the proper space for the desk-room needed for the transaction of business. The continued accumulation of applications, works of reference, copies of drawings and specifications, models, &c., will in the near future crowd the working force out of the building, unless relief is found by providing the additional room needed.

Previous recommendations are renewed by the Commissioner for liberal appropriations for the purchase of books of reference for the library and for the preparation of complete digests of United States patents. As the office yields a handsome revenue over and above all its expenditures, it would appear but simple justice to the inventors who contribute to this revenue that a portion of the surplus should be yearly appropriated for the improvement of its scientific library and for the preparation of such digests of patents as will facilitate the work of examination and make its results more accurate and valuable.

EDUCATION.

The Commissioner of Education reports increased attention to the collection of statistics and increased use by the public of the facts thus collected. He states that the small force of his office has been unequal to the performance of its regular current business, and that he has been compelled to delay special reports or set them aside for the time.

A special report is being prepared on Indian education from the sixteenth century to the present time.

The amount of lands and money hitherto granted by the general government to the several States for the benefit of education, and the amount

realized by each State from its educational land grants, have formed the subject of another report now in hand.

The preparation of the report on industrial and high art education in the United States, including the subject of drawing in the public schools, the history and present condition of all public art educational institutions in the United States, as well as of all public art collections, is substantially ready for the press.

The Commissioner alludes to the interruption of work caused by the recent removal of his office to new quarters, but observes that the rooms now assigned, though inadequate, afford some additional advantages, especially as they allow him to bring the collection illustrating the condition, progress, methods, and appliances of education belonging to his office into close proximity to its library. The benefits to accrue from a national collection illustrating the improvements in these appliances can hardly be overestimated. The valuable library has now more commodious quarters. Since its removal, the books, numbering 10,000 volumes, and nearly the entire collection of pamphlets, numbering 25,000 (with 10,000 duplicates), have been re-examined, classified and arranged, and rendered convenient for use.

During the year the office has issued Circular of Information No 1, 1878, a pamphlet of thirty-six pages, relating to the training of teachers in Germany; Circular No. 2, 1878, relating to education in London, is now in press. The special articles which appeared in the education report for 1876 has been reprinted, in order to supply many requests for them.

The office has sent about 20,000 communications and 15,000 packages of documents; it has received about 24,000 communications and 6,000 packages of documents.

The tendency to modify instruction so as to connect with it industrial training has increased, and several special schools for this purpose have been established. The colleges of agriculture and the mechanic arts have supplied successfully many wants of this kind.

The pecuniary embarrassment of the country has continued to reduce the amount of money expended for school purposes. Reduced salaries in some places have, in the opinion of the Commissioner, had the effect of increasing the number of incompetent teachers, and in many communities the total lack of funds has caused the schools to be closed.

The friends of educational progress both in France and this country looked forward with interest to the International Exposition at Paris; and particularly so, because education was made so prominent a part of the scheme. Dr. John D. Philbrick, of Boston, was requested to take charge of the educational section of the American exhibit, and the Bureau of Education afforded him all the assistance it could. The result of the exposition has been very gratifying. Although the section of education occupied a space of only 550 square feet, the number of premiums awarded to the exhibitors was 121—about one-sixth of the whole

number awarded to exhibitors of the United States; and of these, 27 were gold medals, three of which were awarded to the Bureau of Education. The Commissioner reports that the Government of France has established in the ministry of public instruction a bureau similar in its objects to the United States Bureau of Education, and that the federal government of Switzerland proposes to do the same.

The pleasant intercourse of the office with foreign educators continues. Many important letters have been received and answered. Forty-five foreign periodicals are examined regularly, and important works and reports on education in all the languages of Western Europe are procured as soon as possible, are carefully read, and the most valuable parts are translated or summarized.

Officers in charge of school systems and schools in the regions lately afflicted by the yellow fever report that it has been impossible to give instruction up to the present time; that the orphan asylums are overcrowded, and that there are many destitute children left parentless by the fever, for whom no provision has been made as yet. Correspondence has been had through the office with a view to a partial relief by their reception into institutions for destitute children in other parts of the country which may be so situated as to be able to receive them.

The Commissioner urgently renews his recommendation that appropriations be made sufficient to do the work of the office with reasonable facility, and that Congress devise some plan for the aid of education throughout the country.

CENSUS.

The near approach of the tenth census renders it important that the question of a new census law should be considered by Congress at its next session. If the additional legislation which seems to be required to secure statistical results commensurate with the expense of enumeration be put over to the first regular session of the Forty-sixth Congress, it must suffer from inadequate consideration and hasty action, while the postponement of the initial preparations to so late a date will inevitably enhance the cost of the census and impair the value of the returns.

A work of such extent and complexity, the administrative machinery of which has to be built up for the occasion wholly from the ground, whose agents, or the greater part of them, can, from the nature of the case, have had no experience of such duties, should be carefully planned; every arrangement should be made considerately; every appointment should be thoroughly canvassed; every spot where exceptional liability to failure or error exists should be known and covered by special provisions; and the central statistical office should stand organized and ready to take up the returns as fast as they come in, to sift and sort them with intelligence and without delay, and to digest, compile, and publish them in the briefest time compatible with accuracy. All this can be fully and satisfactorily done only in case

ample time is allowed, after the passage of the act, before the commencement of the enumeration. If the department is to remain uncertain whether the census is to be taken under the act of 1850 or under a new law till the February of the census year—as was the case in 1870—the work must suffer both through enhanced cost and through impaired value.

As to the considerations which seem to demand new legislation, in the interest alike of economy and of the improvement of the statistical results, I respectfully refer to the report of the Superintendent of Census, which is annexed hereto.

The law of May 23, 1850, was passed in the very infancy of statistical science. In the period that has intervened the demands of Congress and the country for statistical information have greatly increased, and new schedules and new inquiries are needed to satisfy those demands.

Better methods of enumeration have become known, through our own experience at three censuses taken under the act of 1850, and through the experiences of other nations in conducting similar services. Even the conditions of the country have greatly changed. While our population was more easily classified in 1850, it now contains elements which vastly increase the labor of enumeration and multiply the liabilities to error. Large numbers of immigrants have been added to our population on the one hand, and five millions of freedmen, who were formerly reported at the census promptly and intelligently by their masters, are now left to speak for themselves under the gravest disadvantages. The very conditions of life among our people have undergone great changes. The interior movements of population have become more rapid and extensive, and half a million of square miles are now settled more or less densely, which in 1850 were unsurveyed, or even unexplored.

As the census of a great nation is a very practical work, into which theory and preconceived notions should enter as little as possible, it would seem that such great changes of condition, as well as the advances made meanwhile in the science of legislation and in the art of government, justify and require a new census law.

The duties of the Census Office, such as the correspondence supplying information asked for, and care of records and documents, have been satisfactorily performed during the year by the clerk in charge. No settlements have been made of the unpaid claims of the assistant marshals at the eighth and ninth censuses owing to the failure of Congress to provide for their payment.

It is to be hoped that such provision will be made at the coming session, in accordance with the recommendation of the department.

GEOLOGICAL AND GEOGRAPHICAL SURVEY.

During the past season the work of the United States Geological and Geographical Survey, under the direction of Prof. F. V. Hayden, was continued northward into portions of Wyoming and Montana Territories.

The usual appropriation for the survey was not passed by Congress until July, rendering the field season very short, yet the results were of considerable magnitude and of much importance.

The survey proper was divided into four parties, one of which was devoted to the extension of the primary triangulation to the northward, two were engaged in topographic and geologic work, and the fourth performed photographic and special geologic duty. All the parties left the Union Pacific Railroad from Point of Rocks and Green River Stations about July 25, and proceeded northward toward the Yellowstone National Park. To the second division was assigned the duty of making an exhaustive survey of the park and its surroundings, and to the third the exploration of the Wind River Range and the Snake River country. The primary triangulation was extended over about twelve thousand square miles. Eight primary stations were occupied, among them Wind River, Fremont's and Grand Teton Peaks, which are among the most difficult and hazardous of ascent on the continent. This division would have performed double this amount of work had a band of hostile Indians not robbed it of its entire outfit about the middle of the season.

The second division made a very detailed survey of the National Park, securing the materials for the preparation of a topographical and geological map on a scale of one mile to one inch. The geologist not only studied the geology minutely, but also sketched every square mile of the area. An unusually interesting and valuable collection of volcanic rocks and hot-spring specimens was obtained. The entire collections of the survey, which are of a varied character, will amount to about three tons weight.

The third division explored with equal care the Wind River and Teton Ranges of mountains, a region of which comparatively little was previously known. The peak named by the survey Fremont's Peak was found to be over 14,000 feet in height above the sea, with no trace that any human being had ever previously reached its summit. Three complete glaciers were discovered on the east side of the Wind River Mountains, the first ever known to exist east of the Pacific coast. The old glaciated rocks and morainal deposits were found on a remarkably grand scale in both the Wind River and Teton Ranges.

The object of again surveying the Yellowstone Park was to bring it under the system of triangulation which had been employed with so much success in Colorado and to make the entire work uniform. All the old hot-spring basins were resurveyed in great detail, and several new ones were discovered and mapped. Soundings and temperatures of several thousand hot springs were taken. The history and habits of the geysers were carefully studied.

The photographer of the survey obtained over fifty fine views of the bowls and other curious ornamental details of the Hot Springs.

The results of the season's labors, though a short one, have been on

the whole very satisfactory. About 12,000 square miles of very difficult country were surveyed, much of it in minute detail, and a mass of observation secured for the twelfth annual report, which will make it of more general interest and value than any of the preceding.

The district assigned to this survey by this department for the next Atlas comprises all the area of the Territories of the United States north of latitude $41^{\circ} 45'$, east of meridian 117° and west of meridian 94° . It is estimated that the mapping of this area will occupy five years more, and when this is completed, the survey will have mapped over one-fourth the territory of the United States west of the one hundredth meridian.

GEOGRAPHICAL AND GEOLOGICAL SURVEY OF THE ROCKY MOUNTAIN REGION.

Major Powell reports that early in July the parties of this survey again took the field. A new base-line has been measured at Kanab, in Southern Utah, on ground better adapted to the requirements of the trigonometric operations than the one formerly established in that vicinity. This line has been connected with the one previously measured at Gunnison by a complete chain of triangles having artificial points. Thus a geodetic basis has been given to the whole geographic work south of the 40th parallel sufficiently refined for all the purposes for which the survey is made.

The topographic and geologic work has been prosecuted south and east of the Colorado River. District 106 has been completed and much work done in district 105. The topographic methods employed were essentially the same as those of the previous season, that is, the plane-table and orograph were used in conjunction, the results of each being complementary to the other.

The hypsometric work rests on the base at Kanab, which had been previously established by long series of barometric observations.

The region surveyed embraces the elevated plateaus south of the Grand Cañon of the Colorado, and the plateaus and desert valleys stretching to the eastward. Very little irrigable land has been found, less than one-fourth of one per cent., as the tributaries of the Colorado are all very small and the great river itself runs at a profound depth below the general surface of the country, so that it cannot be used. Extensive and valuable grazing lands are included in the survey and some valuable forests of pine, spruce, and fir, the extent and characteristics of which have been carefully determined.

As the work has progressed from year to year it has been found that important economic questions relating to the future industries of the far West demanded more thorough investigation. The mineral resources, the extent, and practicability of the irrigable lands, pasturage lands, and timber lands have been regarded as questions of prime importance, and the researches of the survey have been more and more directed to their solution.

For accurate knowledge and clearly defined statements relating thereto, it was found that the geographic work must be improved, and this has been done by using instruments of greater precision and methods of greater refinement.

The geology of the country has proved to be of much interest. The great faults north of the Colorado have been traced southward, and extensive volcanic formations in that region have been studied.

A relief map and a stereogram of the high plateaus of Utah have been constructed for the purpose of a more thorough discussion and illustration of the geologic structure of the district. By these, three important purposes are served. The great accumulation of facts derived from the elaborate system of mensuration used in the geographic work are made available for the determination of geologic structure, the exaggeration and distortion which too often characterize the results of research in this department of investigation are avoided; and the stereogram affords a method of graphically presenting a multiplicity of facts and details that in the texts but serve to obscure the more salient features. Both of these methods have been previously employed in the work with satisfactory results.

Ethnologic researches have been continued among the Utes, Shoshonis, Gosiats, Poncas, Omahas, Iowas, Dakotas, and many other tribes, and much material has been collected relating to their languages, social and governmental institutions, mythology, customs, habits, &c.

During the year the office has been engaged in the construction of a map of the United States, intended to represent the distribution of the various tribes of Indians when they were first discovered by Europeans. This map is near completion and will accompany a report on the classification of the North American Indians, by linguistic affinities, now in course of preparation. Much progress has been made in the preparation of a bibliography of North American linguistics, which will constitute an appendix to the same report.

During the past year the office work has been vigorously prosecuted, and charts, on a scale of four miles to the inch, delineating the geography of the entire region previously embraced in the survey have been completed. The engraving of these charts is rapidly progressing. The drainage and contour lines are finished and the rock and hill work is now in progress. This engraving has been done on copper plates in order that the maps might be put in permanent form for the use of the government in time to come, as well as for the purpose of illustrating the reports of the survey itself. Thus the results of the work will have enduring value.

During the year the following reports have been prepared: Report on the arid lands of the United States, 4°, printed; report on the high plateaus of Utah, 4°; report on the geology of the Black Hills, 4°; report on the Indians of Oregon and Washington Territory, 4°.

Much has been done toward the preparation of subsequent reports on

geology and ethnology. Thus it will appear that valuable contributions have been made to geography, geology, and ethnology. In botany and zoology no work has been done.

ENTOMOLOGICAL COMMISSION.

The United States Entomological Commission, attached to the United States Geological and Geographical Survey of the Territories, has issued its first report on the Rocky Mountain locust, or destructive grasshopper of the West, a volume of some 700 pages, fully illustrated with maps, plates, and wood-cuts.

The favorable predictions made by the commission last winter had an encouraging effect, and stimulated the immigration to the country of late years ravaged by locusts. The statement which a full survey of the field enabled the commission to make in advance, viz, that there would be no serious injury in 1878, has been fully verified. The commissioners have continued their labors during the past summer, confining their attention to that northwestern portion of the country which they have designated as the Permanent Region, the object being to gather further knowledge of that region, with a view of preventing the ravages of the Rocky Mountain locust therein and its migration therefrom.

The problem of destroying the young insects as they hatch out in the more fertile country in the Southeast is virtually solved in the report which the commission has already issued, and the task which they now undertake is to endeavor to prevent the migration of the winged insects from the Permanent Region into the more thickly settled country.

An appropriation of \$25,000 was asked of the last Congress for the completion of the work mapped out, and \$10,000 were appropriated, and this only toward the end of the fiscal year. The commissioners ask for the additional sum of \$15,000, in order that they may be able to continue their investigation until the practical work is accomplished. It was too late in the season when the last appropriation was obtained to permit the completion of the work this year, but with such means as they have husbanded added to the additional appropriation asked for, and with promised assistance by the Dominion authorities, they will be enabled, by getting into the field early the coming spring, to complete fully the work assigned to them.

HOT SPRINGS COMMISSION.

It is greatly regretted that the act for the continuation of the Hot Springs Commission which passed both Houses at the last session of Congress failed to receive the President's signature because of an omission in engrossing the bill. The portion of the bill incorporated in the engrossed copy is practically inoperative, being strangely mixed with a provision directing the National Academy of Sciences to report to Congress the most practicable plan for surveying and mapping the Territories of the United States, and also the most suitable plan for the publication

and distribution of the reports, maps, and documents, and other results of said surveys. As a complete suspension of the work already done by the commission would have been followed by serious embarrassment of the interests of a large population as well as those of the government, I requested—by direction of the President under date of June 25, 1878—the late commissioners to take charge of the records of the proceedings had before them while acting as a commission, and to perform such work as would facilitate the early adjudication of the claims, expressing the hope that Congress at its next session would adopt such legislation as might be needed to confirm the acts done, and provide for a due compensation for their services. The late commissioners complied with the request, had the records of the commission and all the testimony and other papers brought to Washington, and, as will be seen by reference to their report, have rendered valuable service which will greatly facilitate the final adjudication of the cases, when empowered by the law to act. Stenographic notes not before written out, amounting to about 3,000 pages of foolscap, have been transcribed and properly briefed and filed. Careful consideration and much study have been given to the subjects of laying out, widening, and straightening streets, and such other duties have been performed as could be, properly, under the letter of instructions. They have devoted their time and money to the service of the government, and although no legal obligation has been incurred to repay them, yet, under the circumstances, I feel warranted in earnestly recommending that the expenses incurred by them while acting, and pay, at the rate formerly given, be allowed them for the time they have served.

The Hot Springs Reservation contains about 2,565 acres. The Hot Springs Mountain, containing about 265 acres, from whence the supply of water is received, has been set apart as a permanent reservation, to be owned and held by the United States; this will leave about 2,300 acres to be disposed of under the provisions of the act of March 3, 1877.

Before the expiration of their term of office, the commissioners had closed the work of taking testimony from the claimants in interest. More than six months were occupied in this; 2,750 witnesses were examined in 897 cases. The oral testimony and documentary evidence are reported to be equal to 25,000 pages of legal cap. Accurate surveys have been made of the entire tract; boundaries have been re-established, and permanent monuments erected on the exterior and section lines and corners. Monuments have also been set at each angle of the permanent reservation. Claims of individuals have been surveyed and platted on sixteen large maps, representing the quarter-sections. A topographical survey has been made of the entire reservation, and three maps prepared and photolithographed—one topographical map, one claim map, and the third combining the two.

From this it will be seen that the work left unfinished by reason of the clerical omission in the enrollment of the sundry civil bill is of vital importance, not only to the citizens of Hot Springs, but to the govern-

ment itself. It is earnestly urged that the act be renewed as soon as possible upon the reassembling of Congress, to the end that all pending claims may be adjudicated, and improvements completed, as contemplated by the act of March 3, 1877.

The commissioners report the following work remaining unfinished:

First. Straightening and widening old streets; laying out new streets, avenues, and alleys in the town of Hot Springs.

Second. Hearing of arguments in contested claims, and the final adjudication in 897 cases.

Third. The appraisal of each lot awarded.

Fourth. Resurvey of each lot after adjudication of the claims, in order to define the lines and ascertain the exact amount of ground to be certified to each claimant as required by the law.

Fifth. The appraisal of improvements upon each lot awarded.

Sixth. The division of the land not claimed or awarded into lots, squares, or blocks, and appraisal of the same.

Seventh. Preparing and issuing certificates to each claimant who is adjudged the right to purchase, being evidence of claimants on which to base patent.

Eighth. Condemnation and appraisal of all buildings on permanent reservation and issuing certificates therefor.

Ninth. Preparation of a map embodying the results of the whole work to be filed with the Secretary of the Interior, accompanied by the schedule provided for by law.

The superintendent of the Hot Springs Reservation reports that during the year he has had removed from the permanent reservation some three or four hundred people encamped thereon. The erection of comfortable barracks and suitable pools for their use, and the expenses of the removal, were provided for by private contributions. The reservation is now practically free from all nuisances. Reference is made in the report to the destructive fire which destroyed a large portion of the town of Hot Springs, and to the means employed to prevent the introduction of yellow fever. For the year ending June 30, 1878, the total amount collected for water-rent was \$5,260.

Recommendation is made that the present rental of \$5 a month for each tub in use be maintained in the future.

YELLOWSTONE PARK.

The superintendent of the Yellowstone Park reports the construction of about sixty miles of wagon-road within the park during the present season. Although the work was somewhat retarded by the presence of hostile Indians, it was accomplished without loss of life or property. He refers to complications likely to arise with parties who claim to have made improvements within the park, and suggests the early consideration of the questions involved.

For the protection of the park and for the continuation of improvements during the next fiscal year, he recommends the appropriation of \$25,000.

CAPITOL BUILDING AND GROUNDS.

The Architect of the Capitol reports the completion of the improvements in the heating and ventilating apparatus of the House. The commission, appointed by the House of Representatives having been continued, will give further consideration to this important subject with a view of remedying existing defects. Attention is called to the insecure condition of the wall, ceiling, and roof of the old Hall of Representatives, and the combustible material of which they are composed. The Architect says, "The construction of this portion of the building is such that, should a fire take place in any of the rooms adjoining the wall, it would in all probability ascend to the roof." He recommends that all the wooden construction be taken out and fire-proof material substituted. The mere mention of a liability of destruction by fire should be sufficient to secure a thorough investigation of this and other portions of the building, with a view to guarding against even the possibility of such an occurrence.

The attention of Congress is called to the necessity of providing suitable quarters for the store-yards and workshops connected with the Capitol. As the ones now in use are rented, and notice to vacate may at any time be received, it would appear to be both a precautionary and economical measure for the government to provide quarters of its own. Suitable lots can be secured adjoining the government property, on Delaware avenue, near C street north, on which are situated the Senate stables and fire-engine house.

The improvement of the Capitol grounds has steadily progressed during the year, in accordance with the plans proposed. The roadways, footwalks, and walls appear to be constructed in a substantial manner and of durable material. The stone work around the Naval monument has been completed, the only work remaining to be done being the introduction of water and the erection of the bronze figures and lamps.

The purchase by the government of the property on Pennsylvania and Maryland avenues at their junction with First street west, enables the architect to complete the proposed circle according to the original design. It is recommended that a more suitable dwelling-house be erected for the superintendent of the Botanical Garden, the house now occupied being on damp ground and unfit for a healthy residence. The architect reports considerable damage to the bases of the columns of the east portico by reason of the meetings held there from time to time. The material of which the columns are made is a soft sandstone, easily defaced by the feet. He recommends that the practice of holding meetings at this place be forbidden.

The expenditures on account of the Capitol extension for the year ending June 30, 1878, were \$64,000. Improvement of grounds,

\$138,762.24. For ventilation of House of Representatives, \$22,970.70. For lighting Capitol and grounds, and other expenses connected therewith, \$31,048.95.

CONGRESSIONAL LIBRARY.

In compliance with instructions from Congress authorizing the Secretary of the Interior to ascertain as near as may be what would be the probable cost, either through direct purchase from the owner or condemnation for public use, of land adjoining the Capitol grounds on the north, east, and south sides, to the extent required for a proper site for the Congressional Library, and to report to Congress the desired information, I have had prepared plats of the several squares located on the north, east, and south sides of the Capitol, and a full report, as near as could be ascertained, of the area of each lot, its present owner, the assessed valuation of last year, also that of the present year, and the price at which the same can be purchased. The report, together with accompanying papers, will be laid before Congress on the first day of the session as required by law.

PURCHASE OF PROPERTY AT THE INTERSECTION OF MARYLAND AND PENNSYLVANIA AVENUES AND FIRST STREET WEST.

By a provision of the act making appropriations for sundry civil expenses of the government for the year ending June 30, 1879, and for other purposes, the Secretary of the Interior was directed to purchase portions of lots numbered 1, 2, 3, 4, and 5, in square 575, and a portion of lot 9, in square 576, in order to enlarge the circle, and to give proper width to the roadway and sidewalk at the intersection of Maryland and Pennsylvania avenues and First street west.

To carry out the provisions of this law abstracts of the titles of the several lots, portions of which were to be purchased, were prepared by the direction of this department, and were, on the 15th of August, transmitted to the Attorney-General with the request that he would cause to be prepared and presented to the supreme court of the District of Columbia the necessary petition for the appraisement of the several interests of the owners of the real estate, and the improvements thereon, to be taken for the public use. Messrs. William B. Webb, William H. Clagett, B. H. Warner, S. T. G. Morsell, and Elias E. White, were appointed by the court to make the appraisements.

The notification required by the law having been given, the commissioners proceeded under oath to perform their duty. They reported to the court that, taking into view all the benefits and advantages arising from the improvement,

Lot 1, in square 575, was damaged to the amount of \$12,000.

Lot 2, in square 575, was damaged to the amount of \$11,000.

Lot 3, in square 575, was damaged to the amount of \$10,500.

Lot 4, in square 575, was damaged to the amount of \$8,500.

Lot 5, in square 575, was damaged to the amount of \$3,000.

Lot 9, in square 576, was damaged to the amount of \$5,233.60.

The report of the commissioners was ratified by the court, no exception thereto having been taken.

No demand having been made upon the Secretary of the Interior for the assessed value of any portion of the property, within fifteen days after the appraisement, the full amount of the assessed values was, in accordance with the law, deposited in the court to the credit of the owners of the lots and improvements. The title to the property is, therefore, now vested in the United States.

The following allowances were made by the court for costs and fees: To the United States district attorney, \$300; to the marshal of the court, \$99; to the clerk, \$22.05; to the National Republican and the Law Reporter, for advertising, \$57.50. The court allowed the commissioners \$200 each for their services. From the order making this allowance an appeal has been taken on the ground that it is excessive.

The department paid to M. Ashford, esq., for making the abstracts of titles, \$220.

GOVERNMENT HOSPITAL FOR THE INSANE.

The twenty-third annual report of the Board of Visitors is one of unusual interest. It is accompanied by tables showing the number of patients treated during the year, also the number treated from the beginning; their sex, nativity, duration of the mental disease of those admitted, also those who died, forms of disease, age of patients when admitted.

The whole number under treatment during the year ending June 30, 1878, was 947; admitted during the year, 182. The number of males was 721; females, 226. Discharged, recovered, 60; improved, 41; unimproved, 7; died, 46.

The average number of patients treated daily during the year was 781, a larger average than ever before recorded. The accommodations are intended for 563 patients, so that the present necessity for more room is both evident and urgent. It is gratifying to note that, in the face of this overcrowded condition of the hospital, the general health of the inmates is excellent, the percentage of death being but 4.85, the lowest, with the exception of a single year, in the history of the institution.

The products of the farm and garden are estimated at \$23,844.83. The total expenditures for the year were \$174,276.52. This includes all the expenses of the hospital and care of grounds and buildings.

The estimates for the year ending June 30, 1880, are as follows:

1st. For the support, clothing, and treatment of the insane, \$179,250.

2d. For general repairs and improvements, \$10,000.

3d. For airing courts for the recreation of the inmates, for the completion of rooms in the upper story of the bakery, for changing roof of

portion of the building, and providing accommodations for employes and for erection of hay barracks, \$10,500.

4th. For a fire-pump and additional pipe and hose, \$3,500.

5th. For reservoirs and filter-beds to provide pure water for the hospital, including pipes and a tank, \$9,500.

6th. For the extension of the accommodations of the hospital by the erection of a building for female patients, \$300,000, one-third of which is asked for expenditure during the next fiscal year.

7th. For the erection of a suitable structure for the immediate relief of 250 patients of the chronic class, \$30,000.

ASYLUM FOR THE DEAF AND DUMB.

The number of pupils remaining in the institution July 1, 1877, was 81; admitted during the year, 15; from July 1, 1878, to November 1, 21; total, 117. Of this number, 103 were males and 14 females.

The sanitary condition of the institution has been excellent, the report showing exemption from disease of any serious nature, with but a single exception.

All the buildings are now completed; the total expense of completing the college edifice, together with connections with the main building, and the remodeling of the roof of the old edifice, including fixtures of a permanent character, having been \$125,060.64.

The receipts of the institution for the year were \$51,578.06, \$48,000 of which was by appropriation from Congress. The expenditures were \$50,277.03, and of this amount \$28,253.69 were for salaries and wages.

The receipts on account of extension and refitting of buildings were \$72,036.86; expenditures, \$71,996.50.

The estimates for the next fiscal year are, for the support of the institution, including salaries and incidental expenses, \$51,000, and for the erection of a gymnasium, bath-house, and for improvement and inclosure of the grounds, \$15,500.

FREEDMEN'S HOSPITAL.

The whole number of patients in hospital from June 30, 1877, to June 30, 1878, was 807; of this number, 530 were admitted during the year. The number remaining in hospital June 30, 1878, was 231.

The Colored Orphans' Home and Asylum, containing 115 children and attendants, has been supplied with medicines and furnished with medical treatment during the year. In the dispensary department 1,083 patients have been treated and about 4,000 prescriptions prepared for their use.

The number of deaths during the year was 118. The average daily cost of supporting a patient, as given in the surgeon's report, is 46 cents.

As the Freedmen's Hospital is the only one in the District, under government control, where all classes of patients can be treated, its usefulness should not be crippled by inadequate appropriations.

COLUMBIA HOSPITAL FOR WOMEN.

The reports from this institution show that during the year the hospital has been free from any of the diseases usually occurring in lying-in asylums, no adult death being recorded in the obstetrical department. Only one death is recorded in the medical and surgical division, although many of the operations performed were regarded as among the most severe and dangerous in surgery.

The number of patients treated in hospital during the year was 294; the daily average was 29.48. The number treated in the dispensary was 485.

THE TERRITORIES.

In response to a letter addressed to the governors of the several Territories, reports relating to their present condition, resources, &c., have been received from Utah, Montana, Idaho, Arizona, and Washington Territories, and will repay careful perusal. Utah is represented as rich in minerals and the precious metals—gold, silver, copper, zinc, iron, coal, sulphur, and salt being found in various parts of the Territory. The lands fitted for agricultural purposes are mostly taken up and are now under cultivation. There are vast tracts of land which might be valuable for cultivation if properly irrigated, but as the water would have to be brought through canals for long distances, the chances of their redemption are remote. The larger portion of the lands of the Territory is represented as of no value except for grazing purposes.

Agricultural pursuits in Utah are followed almost exclusively by Mormons, while the mining enterprises are conducted by the anti-Mormon population. As a rule the farms are small, owing to the expense and difficulty of irrigating the land.

About three-fourths of the population is represented to be foreign born or of foreign-born parentage, representing nearly all the European nations, the Sandwich Islands, and China, while it is claimed from the best attainable information that about nine-tenths of the people are Mormons.

For school purposes the legislature has imposed a direct tax upon all taxable property of three mills on the dollar. Owing to the fact that the schools are controlled by the Mormons and none but Mormon teachers are employed, the Gentiles decline to send their children to the public schools, patronizing instead private institutions conducted under the supervision of the various religious denominations.

The Uintah Indian Reservation is the only one within the Territory. The Indians thereon are represented to be well behaved, many of them having adopted the habits of civilization and have built comfortable houses for their use. They are engaged in cultivating the soil, raising stock, and give promise of being self-sustaining in a few years. The governor ascribes their present condition as due to good management and to the fact that they have been isolated and under no influences other than those of the officers of the agency.

The difficulty of securing conviction in criminal cases is referred to, and, in the opinion of the governor, is due to the defective jury law in force. Certain suggestions are made looking to the proper remedy, which should receive the consideration of Congress.

The governor of Montana gives a glowing account of the present condition of the Territory. Its climate is represented as mild and healthy; its water courses, of purest water, frequent and convenient; its soil rich in all the elements of productiveness; its mines of precious metals rich and profitable, and its educational facilities, considering the means at the disposal of the Territory, equal to those of the most favored State. The average production of wheat to the acre is claimed to be larger than any of the great grain-producing States of the Northwest. Agricultural lands are abundant in all the valleys, and, for fertility, are represented to be unsurpassed. The development of the mineral resources of the Territory is still in its infancy. The absence of railroads makes the transportation of machinery and ores very expensive, and thus retards the growth of one of the leading industries. The product of the gold and silver mines for the present year is estimated at \$7,000,000. The completion of the Utah Northern Railroad, running from Ogden, Utah, to Helena, Mont., and now in course of construction, will lead to a much larger development of the mining interest. Coal abounds in paying quantities, and timber of fair quality and of commercial value is found in nearly all parts of the Territory. Stock-raising is a growing industry, Montana offering advantages possessed by few sections of the country. The grass is abundant and of good quality; the winters mild; the valleys are protected by the high mountains, and water is found where needed. Since the settlement of the Territory the loss of stock from the severity of the winters has not exceeded 3 per cent. per annum. The governor says, "It is believed that the bunch grass is worth more to the Territory than its mines of gold and silver. This peculiar grass starts up early in the spring, reaches maturity in July, and cures where it stands, thus affording a ready supply of food for stock during the autumn and winter months." The exports from the Territory are gold and silver bullion, cattle, wool, robes, hides, and furs. The wool-clip for the year reached 1,000,000 pounds. In speaking of the people of Montana, the governor says, "They are mainly from the Middle and Western States, are energetic, enterprising, intelligent, law-abiding, liberal, and patriotic, and are of the right kind of material to found the leading commonwealth of the great New Northwest."

The present school law provides for the levy of a tax of from three to five mills upon all the taxable property of the counties. The money collected is apportioned among the various school districts by the county superintendents of public instruction, and drawn from the treasury on order of the district trustees, countersigned by the clerk of the district. Each district is empowered to levy special taxes for building school-houses or extending the school term after the public money is exhausted.

One of the most pleasing indications of the prosperous condition of Montana is to be found in her excellent school system and the popular interest manifested in its rapid development. But little benefit has been derived from the provisions of the organic act, which sets apart sections 16 and 36 of each township as a reserve for school purposes. Practically, the law is inoperative at the present time. In referring to this subject the governor says:

Many of these lands are mineral-bearing, and our local land office holds that they may be patented by individuals, and we have recourse only to the location of other lands in lieu of those thus patented. Unfortunately, neither the superintendent of public instruction nor any one else in the Territory has authority of law to thus relocate lands in such emergencies. Immigrants are rapidly securing the best sections, and if this evil is not promptly remedied it will not be long before the lands left us to choose from will be comparatively worthless.

The report concludes with a statement of the present condition of the Indian tribes within the Territory, their relations to the whites, accompanied by suggestions as to their future government, which should receive the candid consideration which their importance demands.

The governor of Idaho reports gold and silver as the leading resources of the Territory; all other industries are subsidiary to the production of the precious metals. The greater portion of the Territory is unfitted for cultivation by reason of the mountains and desert plains, too elevated to admit of irrigation. The valleys where water abounds, or where irrigation can be profitably carried on, produce in rich abundance the cereal grains, vegetables of all kinds, and fruits in their perfection. Beyond producing for home consumption there is but little inducement for agricultural enterprises, the means for transportation being extremely limited.

It is to be regretted that the cause of education receives but indifferent attention. The lands reserved for school purposes are not available as a source of revenue, so that what is done in the educational line depends upon the direct tax collected for that purpose. The Territory has no benevolent or charitable institutions and no asylums for the unfortunate of any class. In referring to the Indian tribes within the Territory the governor says:

Whatever policy may be adopted toward the native tribes, it cannot be concealed that the steady encroachments of the white settlements are rendering their condition distressing and their vicinity more dangerous. Seeing themselves surrounded and circumvented, their hunting-grounds overrun, and their means of subsistence cut off, they become desperate and aggressive and mutual wrongs lead to war.

The governor expresses the opinion that our border population and the Indians cannot dwell near each other in peace under existing relations. He thinks a remedy may be found in the division of Indian lands into homesteads; the breaking up of tribal relations, and the extension over them of the laws of the United States and of the Territories. Reference is made to the extreme difficulty in traveling in the Territory, and an illustration of this is given in the statement that the members of the

general assembly from Lemhi County, about 160 miles in a direct line from the capital, are paid mileage for 1,124 miles each way. They are forced to go through portions of Montana, Wyoming, and Utah, while the members from North Idaho pass through Washington Territory and the State of Oregon, a distance of 610 miles, the direct line being but 130 miles. The suggestion is made that the extra cost for transportation, both for Army and other stores, would build a substantial military road from Fort Boise to Fort Lapwai. The policy of liberal land-grants to railroads is favored by the governor, who believes that only through such grants the necessary roads can be built. A revisal and consolidation of the laws governing the Territories are recommended. There is a necessity for defining more carefully the rights and limitations of local legislation and of holding officers to a stricter accountability.

The governor of Washington Territory presents a report of Territorial prosperity quite as pleasing as that from Montana. The Territory is divided by the Cascade Range of mountains into two nearly equal divisions, known as Eastern and Western Washington, differing in soil, climate, and productions. A large portion of the western division is covered with dense forests of fir trees, averaging in height more than 200 feet. For ship-building this timber is unequaled, and for many years past heavy shipments have been made, not only to cities upon our own coast but to those of England and France. The governor says that—

It has been estimated that the cost of building ships here is 35 per cent. less than the cost at Bath, Me., or at any other Atlantic ship-yard. In the near future ship-building on Puget Sound will constitute one of the most important branches of productive industry in the Territory.

The principal resources of the Territory are coal and lumber, the present annual production of the latter being about 250,000,000 feet. Of this quantity more than 200,000,000 feet are exported to San Francisco, South America, the Sandwich Islands, and other points.

There has been but a partial development of the coal-fields, although coal has been found in nearly every county of Western Washington. The value of the exportations from Western Washington is given at \$5,000,000. While the western division of the Territory cannot properly be classed as agricultural, yet it has an area of at least 5,000 square miles of excellent farming land.

Puget Sound is the attractive feature of the Territory. It extends from the British line in the north and from the Straits of Juan de Fuca on the west to Olympia, in the interior, and has a coast line of 1,594 miles. It can be navigated at all seasons of the year and by all classes of vessels. Severe storms on its waters are unknown. From the Pacific Ocean to Olympia, a distance of more than 200 miles, it is free from bars, shoals, rocks, or other obstructions. The climate of Western Washington is mild, ice and snow being seldom seen. The average winter temperature is 39°, that of summer 63°. The warmest days in summer are accompanied by cool and refreshing nights.

Unlike Western Washington, the eastern division has but little tim-

ber. Its vast rolling prairies make it peculiarly fitted for grazing purposes, and for wheat-growing it has few equals on the continent. It is estimated that its area of wheat-land is sufficient to produce, with ordinary culture, more than 100,000,000 bushels annually. The present yield for the season is estimated at 1,500,000 bushels. All the fruits, except tropical, and all vegetables of superior quality, are grown in great abundance. The soil and climate are well adapted to the production of peaches and grapes. For stock-raising this section of the Territory is unsurpassed, there being an unlimited supply of bunch-grass growing spontaneously over many thousand square miles on Puget Sound. The completion of the canals around the obstructions on the Columbia River will largely reduce the rates of transportation, and give a new impetus to the agricultural interest of Eastern Washington.

In referring to these improvements the governor says :

There is no work of internal improvement now carried on by the government which is of more importance than these canals. When completed there will be uninterrupted steamboat navigation from the wheat-growing regions of Eastern Washington and Oregon, and Western Idaho, to the Pacific Ocean.

The average temperature is as follows: Spring, 52° ; summer, 73° ; autumn, 53° ; winter, 34° .

The report is silent upon educational matters, with the exception of a reference to the Territorial University, located at Seattle. The university was erected from the proceeds of the sales of university lands donated by the General Government, and is supported by appropriations from the Territorial treasury, and is under the management of a board of regents. It is reported as being in a prosperous condition.

The conclusion of the report refers to Indian affairs. Strong feeling exists against the reservation system, due to a great extent to the outbreak in Idaho last year, and to Indian troubles in Oregon during the present year. It is represented that a feeling of insecurity exists among the settlers throughout the Territory caused by the disaffection and discontent among the Indians. The governor favors the breaking up of all tribal relations; the extension of homestead and pre-emption rights to the Indians, and would have them made amenable to the laws of the United States and of the Territory.

The governor of Arizona presents an interesting report descriptive of the soil, climate, and resources of the Territory. Although geographically located on the direct line between the populous Atlantic States and Southern California, it is shut out from lines of travel and barred against progress by its inaccessibility. There are neither railroads to it, in it, nor any roads other than those afforded by the natural surface of the ground, and these are rendered difficult to travel by the hot, dry, and sandy or stony ground over which lie the approaches to the settled portions of the Territory. The Little Colorado and Salt River regions are reported to be the granaries of the Territory. The soil is extremely fertile, and the bordering mountains well adapted for stock-raising. The

governor estimates the farming and grazing lands of the Territory as about equal in area to the State of New York. Heat is a dominant feature of the climate. In the dry valley of the Colorado the summer heat is intense and of long duration. It is a noticeable fact that the heat of the sun does not produce the fatal effects of extreme heat in the moist climate of the Atlantic coast.

The chief industry of Arizona is the development of its mineral wealth, gold, silver, and copper being found in large quantities. The difficulties of transportation deter the growth of population and the investment of outside capital. Reference is also made to the insecurity of titles as one of the causes operating against immigration and the influx of money. The public schools of the Territory are reported to be in a good condition, and the progress made in education satisfactory. The governor discusses the Indian question, the condition of the tribes within the Territory, their wants, &c., and makes certain suggestions as to their future treatment. The concluding portions of the report are devoted to the presentation of facts relating to projected railroad routes and suggestions thereon, together with a suggestion that competent persons be employed to examine "the structure of the country" and make experiments from time to time with the view of indicating to the people the situations and depths at which water, whether by artesian wells or other means, may be found.

As reports had not been received from the governors of Dakota, Wyoming, and New Mexico at the time of preparing this report, no reference has been made to their present condition and resources. Should they be received in time they will be printed, so that the series of reports from the several Territories may be complete.

RESTORATION OF INTERIOR DEPARTMENT BUILDING.

At its last session Congress appropriated \$600 to enable the Secretary of the Interior to secure competitive plans for the repairing and reconstruction of the Interior Department building. It also authorized the appointment of a commission of three practical men skilled in the art of building to make report and submit specifications upon the plans secured, and appropriated for the work of restoration the sum of \$100,000.

On the 14th of June, 1878, a circular was sent to many of the leading architects of the country, and to all who expressed a desire to compete, calling for plans for the restoration and reconstruction of the building.

Among the requirements were:

1. A design for the restoration of the building substantially as it stood before the fire.
2. A design for the conversion of the former model-rooms in the north and west wings into office-rooms, and the addition of a model-room above the offices and around the whole building, or over the north and west wings, without, however, changing the present architectural appearance from the street; also design for an additional story.
3. Designs for an entire new roof for the whole building; also, eleva-

tors for the north and south wings; also, for a structure connecting the north and south wings through center of court-yard.

Six hundred dollars were offered for the design deemed best and recommended by the skilled architects acting as a commission for the examination of the plans submitted.

The commission consisted of James K. Wilson, of Cincinnati, Ohio, Richard M. Upjohn, of New York, and H. W. Hartwell, of Boston, Mass.

These gentlemen entered upon their duties on the 22d of July, and after a careful examination and earnest consideration of the various plans before them submitted a unanimous report on the 9th of August, recommending the design which had been submitted by J. A. Vrydagh, of Terre Haute, Ind. All the plans were examined by the commission without knowledge on their part of the names of the competing architects. The award was thereupon made to Mr. Vrydagh, and \$600 paid to him in accordance with the terms of the circular and the act authorizing the payment. He was invited to visit Washington for the purpose of conferring with the department in relation to the work, and was subsequently authorized to complete the detailed drawings and submit estimates of the work in detail; also, the total cost of the reconstruction.

This labor was performed, and the detailed drawings, together with the estimates, were received at the department on the 14th of the present month. The total cost of the reconstruction upon the plan recommended by the commission is estimated at \$973,931.90. The reconstruction of the building upon this plan would secure an addition of at least seventy commodious rooms and other conveniences not now possessed, and would make the entire structure practically fire-proof.

In view of the short time intervening between the completion of the detailed drawings and the meeting of Congress, and the further fact that no obligations can be incurred beyond the amount of money appropriated, I have deemed it proper to delay further action until the plans and estimates shall have been submitted to Congress, and such additional legislation had as will provide for the prompt prosecution of the work. While I recognize the absolute necessity of providing more room for the growing wants of the department, I have not felt authorized to begin a work the completion of which would so materially change the style and architectural proportions of the building as it now stands.

The plans, estimates, and all facts necessary to a thorough understanding of the work will be transmitted to Congress at an early day, with the recommendation that, in the event of the design being approved or other direction given, a sufficient appropriation be made to cover the estimated cost of the improvement, so that the reconstruction of the building be no longer delayed.

I am, sir, very respectfully, your obedient servant,

C. SCHURZ,
Secretary of the Interior.

The PRESIDENT.

REPORT

OF THE

COMMISSIONER OF THE GENERAL LAND OFFICE.

LETTER OF THE COMMISSIONER OF THE GENERAL LAND OFFICE TRANSMITTING HIS ANNUAL REPORT FOR THE FISCAL YEAR ENDING JUNE 30, 1878.

DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,
October 28, 1878.

SIR: I have the honor to transmit herewith the annual report of this office showing the business transacted during the fiscal year ending with the 30th June, 1878. This report shows—

First. The extent of surveys, exhibiting the area surveyed during the fiscal year as 8,041,011.83 acres, the whole area surveyed since the beginning of public surveys as 724,311,477 acres, and the area of the States and Territories containing public lands which remains unsurveyed as 1,090,461,171 acres.

Second. It shows the extent of the disposals of public lands during the fiscal year. Under this head it appears that the whole number of acres disposed of during the year is 8,686,178.88 acres, showing an increase of 3,836,411.18 acres over the area disposed of during the previous fiscal year. The total of disposals for the year is made up of the following items, viz:

	Acres.
Cash entries.....	877,555.14
Being an increase over the previous fiscal year of 136,868.57 acres.	
Homestead entries.....	4,418,344.92
Being an increase over the previous fiscal year of 2,240,336.75 acres.	
Timber culture entries.....	1,870,434.18
Being an increase over the previous fiscal year of 1,349,760.79 acres.	
Desert land entries under act of March 3, 1877, this being the first entire year of its operation.....	310,553.05
Agricultural-college scrip locations.....	640.00
Being a decrease of 640 acres as compared with the previous fiscal year.	
Locations with military bounty land warrants, under acts of 1847, 1850, 1852 and 1855.....	84,720.00
Being a decrease of 12,480 acres as compared with the previous fiscal year.	

State selections approved:

For school indemnity.....	50,142.59
For internal improvements.....	17,420.39
For agricultural colleges.....	24,097.40
For universities.....	44,844.43
For salt springs.....	24,114.56
For public buildings.....	29,146.33
For penitentiary.....	25,226.83
	214,992.53

Being an increase over the previous fiscal year of 59,354.80 acres.

<i>Scrip locations :</i>		Acres.
With Sioux half-breed scrip	1,715.30	
With Chippewa scrip	8,860.92	
With Valentine scrip	324.74	
		10,900.96
		7,788,140.78
Locations of scrip issued under the acts of June 2, 1858, and June 22, 1860, in lieu of lands embraced in private claims, but not taken in place		83,143.60
		7,871,284.38
Lands patented to States as swamp under act of September 28, 1850, or approved as such to Louisiana, under the act of March 2, 1849, which has the effect of a patent		202,925.85
Being a decrease as compared with the previous fiscal year of 211,492.51 acres.		
		8,074,210.23
Lands certified for railroad purposes	606,340.65	
Being a decrease as compared with previous fiscal year of 94,451.31 acres.		
Lands certified for canal purposes	5,628.00	
		611,968.65
Total number of acres disposed of during the fiscal year		8,686,178.88

The figures given show a great increase in the quantity of land taken up by the class of actual settlers as homesteads and for the purpose of timber culture.

The moneys received during the year amount to \$2,022,532.16, for cash sales, for homestead and timber culture fees and commissions, and other fees paid, being an increase over the previous fiscal year of \$569,562.93.

Third. The report gives a statement of the operations of the surveyors general in the sixteen surveying districts during the last fiscal year, in which reference is made to detailed reports from them, which are appended. Under this head is included a statement of the survey of the Dakota and Wyoming boundary line, the survey of the boundary between the State of Arkansas and the Indian Territory, the survey of the Cherokee Indian lands in North Carolina, and the survey of townships 18 and 19 north, of range 1 west, in Michigan, pursuant to special acts of Congress therein mentioned.

Fourth. It gives particulars of the business connected with the disposals of public lands through the registers and receivers of the district land offices—ninety-eight in number—the examining, adjusting, and reporting of their accounts, and incidental business.

Fifth. It shows the work done in connection with the suppression of timber depredations on the public lands, adjusting of private land claims and transferring to parties entitled the land covered thereby, and presents information with regard to abandoned military and Indian reservations and miscellaneous matters.

Sixth. In the course of the report, the Commissioner recommends legislation as follows, viz :

1. That section 2262 of the Revised Statutes be so modified as to admit of the affidavit of the claimant in pre-emption cases, now required to be taken before the register or receiver of the district office, being taken before the judge, or in his absence before the clerk of any court of record in the county in which the land claimed may be situated, as the law now allows of homestead final affidavits and proof being taken.

2. He recommends the repeal of sections 2382, 2383, 2384, and 2385

of the Revised Statutes in regard to town sites, with the provision, however, that the towns, six in number, which have already filed plats according to the principles thereof as formerly embodied in the acts of July 1, 1864, and March 3, 1865, may obtain title to their lots thereunder, or that the lots not yet disposed of in these towns may be sold to the mayor or proper county judge, acting as trustee for the occupants, at a stated price, say one dollar per lot of 4,200 feet.

3. Recommends legislation with regard to certain lapsed railroad grants for either declaring the grants forfeited and laying the lands open to other disposal, or extending the time for the completion of the roads.

4. Recommends an amendment of the law with regard to mineral claims (section 2320 of the Revised Statutes), requiring that the end lines of each mineral claim shall be parallel to each other, such as would admit of disposing of small triangular-shaped portions of mineral land which cannot be embraced entirely in any survey with parallel end lines.

5. Renews recommendation of his last annual report for an amendment of paragraph 2 of section 2238 of the Revised Statutes, which would in express terms limit the commissions of registers and receivers therein provided for to moneys received on account of cash sales.

6. Recommends an amendment of section 2362 of the Revised Statutes to enable the department to extend prompt relief to parties entering public land where the title cannot be confirmed, and also in cases where erroneous and illegal exactions have been made, by refunding to them the money paid in error.

7. Recommends such legislation as will relieve the district land officers from the existing requirement of the law that they account for moneys received by them for reducing to writing testimony adduced for establishing pre-emption, homestead, and mining claims, as public moneys.

8. Recommends legislation whereby this office may be allowed to retain the money received for exemplifications furnished from its records as a fund to provide the necessary clerical labor for the work instead of being required as now to pay it into the Treasury.

9. Renews former recommendation that Congress should pass an act transferring any title the United States may possess in the islands and beds of meandered lakes, sloughs, and ponds to the States in which they respectively lie.

10. Recommends legislation for permitting certain abandoned military reservations, where the lands are unimproved and of no special value, to be disposed of as are public lands generally.

11. Recommends legislation for disposing of the remnant of what are known as the Shawnee Absentee Lands in Kansas.

12. Recommends that the surveyors general be all provided with an official seal, and authorized to authenticate copies from the files and records of their respective offices, as the surveyors general of Louisiana, California and Oregon now are in section 2224 Revised Statutes.

13. Refers to former representations made by him regarding the need of an increase of the number of clerks and a reorganization of the office.

Respectfully submitted.

J. A. WILLIAMSON,
Commissioner.

The following is a list of the names of the members of the American Medical Association who have been elected to the office of President for the year 1914. The names are listed in alphabetical order of their last names.

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ANNUAL REPORT.

DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,
October 28, 1878.

SIR: The following is presented as a report of the business of this office in dealing with the matters committed to its charge in connection with the survey, the sale, or other disposal of the public lands of the United States during the fiscal year which expired with the 30th June, 1878. It has in these operations followed the methods and employed the agencies prescribed by law, including the surveyors general, with their deputies, in sixteen surveying districts, and the registers and receivers of the district land offices in ninety-eight land districts. Congress having abolished the district offices in the States of Ohio, Indiana, and Illinois, by its act of July 31, 1876, it has devolved upon the Commissioner of this office to act as register and receiver *ex officio* in regard to the remnant of lands therein, under the act of March 3, 1877.

The surveys during the fiscal year reach the aggregate of 8,041,011.83 acres, making the total area surveyed since the beginning of public surveys 724,311,477 acres, and leaving as unsurveyed area of the States and Territories containing public lands 1,090,461,171 acres. This is exclusive of private claims, of which 4,356,377.45 acres were surveyed during the fiscal year.

The number of acres entered under the laws for the disposal of the public lands during the fiscal year ending with the 30th June, 1878, include the following:

	Acres.
Cash entries.....	877, 555. 14
Being an increase over the previous fiscal year of 136,868.57 acres.	
Homestead entries.....	4, 418, 344. 92
Being an increase over the previous fiscal year of 2,240,336.75 acres.	
Timber-culture entries.....	1, 870, 434. 18
Being an increase over the fiscal year of 1,349,760.79 acres.	
Desert land entries, under act of March 3, 1877, this being the first entire year of its operation.....	310, 553. 05
Agricultural-college scrip locations.....	640. 00
Being a decrease of 640 acres as compared with the previous fiscal year.	
Locations with military bounty land warrants, under acts of 1847, 1850, 1852, and 1855.....	84, 720. 00
Being a decrease of 12,480 acres as compared with the previous fiscal year.	

State selections approved:

For school indemnity.....	50, 142. 59	
For internal improvements.....	17, 420. 39	
For agricultural colleges.....	24, 097. 40	
For universities.....	44, 844. 43	
For salt springs.....	24, 114. 56	
For public buildings.....	29, 146. 33	
For penitentiary.....	25, 226. 83	
		214, 992. 53
Being an increase over the previous fiscal year of 59,354.80 acres.		

<i>Scrip locations :</i>		Acres.
With Sioux half-breed scrip.....	1,715.30	
With Chippewa scrip	8,860.92	
With Valentine scrip	324.74	
		10,900.96
		7,788,140.78
Locations of scrip issued under the acts of June 2, 1858, and June 22, 1860, in lieu of lands embraced in private claims, but not taken in place		83,143.60
		7,871,284.38
Lands patented to States as swamp under act of September 28, 1850, or approved as such to Louisiana under act of March 2, 1849, which has the effect of a patent.....		202,925.85
Being a decrease as compared with the previous fiscal year of 211,492.51 acres.		
		8,074,210.23
Lands certified for railroad purposes	606,340.65	
Being a decrease as compared with the previous fiscal year of 94,451.31 acres.		
Lands certified for canal purposes.....	5,628.00	
		611,968.65
Total number of acres disposed of during the fiscal year		8,686,178.88
Being an increase of 3,836,411.18 acres over the previous fiscal year.		

The total amount of moneys received during the fiscal year ending June 30, 1878, is \$2,022,532.16, derived from the following sources, viz :

Purchase money of lands sold.....	\$1,130,752 00
Homestead fees and commissions.....	556,526 32
Timber culture fees and commissions	181,535 00
Agricultural-college scrip fees	24 00
Fees on pre-emption and homestead filings	87,190 00
Fees on coal filings	147 00
Fees on military bounty-land warrant locations.....	2,121 00
Fees for transcripts of records furnished by district land officers.....	891 05
Fees for reducing testimony to writing by district land officers	27,664 45
Fees on railroad and wagon-road selections.....	7,149 15
Fees on mineral filings and protests	10,610 00
Fees on state selections	4,035 44
Donation fees	1,460 00
Fees on Valentine scrip.....	28 00
Fees for certified copies furnished by this office under sec. 461, Revised Statutes	12,101 75
Fees from miscellaneous sources	297 00
	2,022,532 16

There were received in this office during the fiscal year a total of 82,295 letters, and there were written and recorded during the same period, 57,421.

SURVEYING OPERATIONS.

I here invite attention to the surveying operations of the fiscal year, the results of which are above indicated. By the act of Congress of March 3, 1877 (19 Stat., p. 348), the sum of \$300,000 was appropriated for surveys of public lands and private claims for the fiscal year ending June

30, 1878. This sum was apportioned among the sixteen surveying districts by the department, as shown in the following table:

For surveys in—	Public lands.	Private claims.
Arizona	\$8,850	\$3,000
California	24,700	2,000
Colorado	35,000	4,000
Dakota	17,700	.....
Florida	3,650	.....
Idaho	14,400	.....
Louisiana	7,200	.....
Minnesota	12,400	.....
Montana	17,700	.....
Nebraska	14,400	.....
Nevada	13,050	.....
New Mexico	15,900	33,500
Oregon	16,050	.....
Utah	16,050	.....
Washington	16,050	.....
Wyoming	14,400	.....
Total	247,500	42,500
Amount apportioned for public surveys		247,500
Total amount for surveys		290,000
For examination of public surveys in the field		10,000
Amount of appropriation		300,000

Pursuant to the provisions of said act, and the apportionment made by the department of the money thereby appropriated, instructions were issued by this office on the 29th June, 1877, to the respective surveyors general slightly variant in their tenor, according to the nature of the public service devolving on them, but the general character of which will appear from the following example, being the instructions issued to the surveyor general for the district of Colorado:

By an act making appropriations for sundry civil expenses of the government for the fiscal year ending June 30, 1878, approved March 3, 1877, there were appropriated for survey of the public lands and private land claims \$300,000, with proviso that the sum appropriated should be expended in such surveys as the public interest may require, under the direction of the Commissioner of the General Land Office, with the approval of the Secretary of the Interior, and at such rates as he shall prescribe, not exceeding the rates authorized by law, which are as follows: \$10 per mile for standard lines; \$7 per mile for township lines, and \$6 per mile for section-lines, except that in heavily-timbered and mountainous lands the Commissioner of the General Land Office may allow not exceeding \$16 per mile for the survey of standard, \$14 for township, and \$10 for section lines.

The law further provides that no lands shall be surveyed under the appropriation except—

1st. Lands adapted to agriculture without artificial irrigation.

2d. Irrigable lands, or such as can be redeemed, and for which there is sufficient accessible water for the reclamation and cultivation of the same, not otherwise utilized or claimed.

3d. Timber lands bearing timber of commercial value.

4th. Coal lands containing coal of commercial value.

5th. The exterior boundaries of town sites.

6th. Private land claims.

In conformity with the foregoing provisions of law, the Acting Secretary of the Interior, on the 25th June, 1877, directed that the sum of \$35,000 be apportioned out of the appropriation for surveys of public lands in your district and \$2,000 for the survey of private land claims at the rate prescribed by the law, which amount must not be exceeded in entering into contracts for surveys specifically authorized under the six different classes hereinbefore enumerated.

In so far as the survey of public lands is concerned, you will let contracts *only* to deputies of known ability, who are practical and faithful surveyors, for the survey of such standard lines as may be needed to reach townships settled by *permanent agriculturists* applying for the subdivision of the specific townships in which they are settled, or for the accommodation of mining interests, surveys of coal and timber lands

and town sites; also for the survey of such lands as are adapted to farming without artificial irrigation, or irrigable lands for which there exists sufficient water accessible for their reclamation and the cultivation of crops, and which lands are likely to attract settlers.

It is not intended to use the means assigned to your district for the survey of public lands subserving *pastoral interests merely*. You will, therefore, enter into no contract for lands of this character, but confine yourself to such as are allowed by law under the first five heads of the foregoing specifications, always giving preference to lands already settled upon and awaiting the survey.

Representations having been made to this office by the executive of the State of Colorado of the need of an early extension of the lines of public surveys in Bear River Valley, in order to prepare cultivable lands for an extensive colony of emigrants who intend to settle in that region of country, you will, upon consultation with the State authorities upon the subject, direct your field operations to that locality, provided the character of the land falls within the purview of the law.

In view of misapplication of public funds in certain surveying districts by surveyors general letting contracts for the survey of inarable lands during the past fiscal year, thus subjecting their deputies to losses voluntarily incurred by surveying desert lands in violation of law and instructions, you will caution your deputies to avoid the subdividing of unauthorized lands; for when, upon actual inspection in the field, surveys shall be found to have been executed either unfaithfully or in derogation of law, the offending deputies will be subjected to the loss of their labor and expenses incurred in unlawful surveys.

I have to inform you in this connection that the sum of \$10,000 was set aside by the department out of the aforesaid \$300,000 for the examination of surveys in the field in the different surveying districts. It is not intended to assign any particular sum to any of them for this service, but it will be applied by this office as exigencies may require.

In case any returns of surveys approved by you and transmitted here for payment shall be found indicative of irregularities and non-compliance with contracts and the requirements of the law and instructions, the necessary part of the funds thus set aside will be applied to cover the expenses of the examination by such agents as this office shall deem proper to appoint for the purpose, and in the mean time no payment will be made for work of that kind executed by deputy surveyors, unless the result of the inspection of the lands surveyed shall be favorably reported to this office.

Such being the policy adopted by the department, with the view of guarding against unlawful surveys in the future, you are hereby required to acquaint your deputies to whom you will let contracts for the public surveys, that unless their work shall be executed in accordance with the terms of their contracts, the law and instructions, not only in regard to the correctness of the survey, but also with respect to the character of the lands authorized to be surveyed, no accounts of such deputies will be paid.

In order to avoid as much as possible in future similarly ruinous occurrences, you will be very particular on your part to acquaint yourself with the true character of lands before entering into contract for the survey thereof, and in submitting contracts for the approval of this office you will state valid reasons for so doing.

By direction of the department, I have to inform you that if you should let contracts for the survey of lands not authorized by the appropriation act, which enumerates the six different classes of lands to be surveyed, you will be held to strict account for so doing; therefore, in order to avoid misapplication of the funds allotted to your district for the surveying service, you are required to be vigilant in the selection of the lands to be surveyed, taking only such as are known to you to be of the classes specified, either of your own knowledge or from that derived through actual settlers.

The instructions of the 23d of August, 1876, to your predecessor in office, will be regarded as still in force, except where they conflict with the foregoing.

In regard to the operations of the several surveyors general, under the instructions issued to them, I submit the abstracts given below, while referring for further details to their reports in full, which are hereto appended.

Arizona.—Under the apportionment of \$8,850 for public surveys in Arizona during the year ending June 30, 1878, two contracts were entered into, one of \$5,000, and one of \$3,850. The work returned under these contracts amounted to \$8,984.81, of which only the amount of \$8,850 was audited, that being the sum apportioned.

Of the apportionment of \$5,000 for surveys of private land claims in Arizona for the year 1878, \$2,000 was withdrawn and reassigned to another surveying district, and the balance, \$3,000, remains unexpended and unavailable under the law.

For reasons stated by the surveyor general in his report of 1877, he has been unable to open and conduct the investigation necessary to pass upon private land claims. Settlers and miners are coming in very fast, and the necessity exists for a speedy settlement of titles to these private claims. He speaks of the necessity for the establishment of the boundaries of the White Mountain Indian reservation, to prevent difficulties between miners and Indians and other settlers and Indians. He wants grazing lands surveyed and asks for a change in the law so as to allow of their survey when actually occupied.

The appropriation of \$5,750 for salaries of his office was expended, and \$1,397.55 were expended out of the \$1,500 appropriated for contingent expenses.

The sum of \$761.70 was deposited during the year for office work on surveys, and this added to \$1,158.10, the amount previously deposited and unexpended, made the sum of \$1,919.80 available to pay for office work. Of this, \$518.50 were paid, leaving \$1,401.30 unexpended.

There were prepared in the office of surveyor general 111 plats and diagrams of public surveys and 52 plats of mining and mill-site claims.

Number of miles surveyed during the year, 2,076. Number of mining and mill-site claims surveyed, 13.

Surveys were made in 36 townships to an extent of 615,494.38 acres, which, added to 3,872,478.36 previously surveyed, makes a total of 4,487,972.74 acres, besides 1,229.57 acres of mining and mill-site claims surveyed.

California.—The sum of \$17,700 for public surveys and \$6,000 for surveys of private claims was originally apportioned to California. Subsequently the sum of \$3,000 was transferred to public land surveys in California from the apportionment to Nevada, and \$4,000 from the private claim apportionment in California to the apportionment for public land surveys therein, thus making a total of \$24,700, available out of the general appropriation for surveys of the latter class in California. Under this amount 18 contracts were let and the sum of \$19,386.32 has been expended, leaving \$5,313.68 applicable to contracts the work of which had not been audited at date of report, viz, August 22, 1878.

Fifty contracts were let payable out of special deposits.

The number of miles run and marked in the public surveys was 120 of standard and meridian, 736 of township, and 3,632 of section and meander lines. Surveys were made in 133 townships of 1,793,423 acres of public land, 126,975 acres of private claims, and 15,561 acres of Indian reservation.

Five contracts were made payable out of the \$2,000 remaining of the original apportionment of \$6,000 for surveys of private land claims, and the sum of \$1,077.14 remains unexpended of said \$2,000.

Surveys of 157 mining claims were approved during the year. Total number of plats prepared in the office was 1,168, of which 697 were of mining claims and amendments, and 415 were of original, duplicate, and triplicate plats of township subdivisions and amendments.

There were prepared and transmitted to the General Land Office 181 transcripts of field notes of public surveys; also copies of descriptive notes, decrees of court and other papers relating to 29 private claims, some of them being very voluminous.

The amount deposited for surveys of public land was \$13,190.90, and for office work on those surveys \$4,121.86. The sum of \$9,055 was deposited for office work on surveys of 151 mining claims.

The sum of \$977.28 of special deposits for office work was withdrawn and the sum of \$13,957.96 paid out for salaries of clerks and draughts-

men from special deposit fund, thus overdrawing the account for the year to the amount of \$1,758.38, which amount was paid out of deposits subsequently made.

The appropriation of \$3,000 for incidental expenses of the office was insufficient by \$458.79 to meet the necessary expenses of the office. Of the appropriation of \$2,750 for salary of surveyor general there have been expended \$2,153.10, leaving a balance of \$596.90 unexpended, owing to a vacancy in the office of surveyor general during a part of the year. The appropriation of \$10,000 for clerk hire has been expended and a deficiency created in salary accounts amounting to \$5,971.76, which is still unpaid.

The estimates for surveying service for the year ending June 30, 1880, are as follows: For surveys of public lands, \$150,000 (including \$50,000 for survey of timber lands); for surveys of private claims, \$3,000; for salaries of clerks and draughtsmen, \$15,000; for bringing up arrears of office work on public surveys, \$10,000; for bringing up arrears of work on private claims, \$2,000; for salary of surveyor general, \$3,000; for fire-proof safe, \$1,800; and for other incidental expenses, \$3,000.

The surveyor general reports a large amount of office work in arrears, especially in segregation of swamp lands and settlement of boundaries of private land claims. He opposes the plan for consolidating the surveying districts with headquarters at Washington as sure to produce delay and confusion in the transaction of the public business, for the reason that the records of his office are so frequently consulted not only by people of the State and members of the bar in California, but by deputy surveyors in the course of their surveys. He advocates large appropriations for surveys of standard and exterior lines for a few years, after which the subdivisional surveys could be made under the special deposit system. He says that the most of the settlements in California are on unsurveyed lands, and that many of these lands are held in large tracts by a few individuals, who, under State laws giving possessory rights on unsurveyed lands, hold these tracts to the exclusion of others who desire to go upon them.

The report is quite full in respect to private land claims, giving the number presented for confirmation, the number and names of those which have been patented, and those which are still before his office and the department for action.

He also states some of the difficulties attending the proper adjustment of private claims, and under date of 24th August, 1878, incloses a report of the keeper of the Spanish archives in his office, in support of the statements of the surveyor general. He recommends legislation by Congress to limit the time in which mining claimants should be required to apply for a patent, and gives reasons why the local land officers should be instructed to notify the surveyor general when an entry of a mine is made and when a patent for a mining claim is issued.

Colorado.—Under date of September 2, 1878, the surveyor general reports that in view of the assignment of \$35,000 for public surveys in Colorado during the year ending June 30, 1878, 19 contracts were made for surveys of agricultural and timber lands. All the work under these contracts is completed, except in one case.

The apportionment has been paid out except \$702.99, with some work not yet returned.

Surveys were made in 49 townships, from the sixth principal meridian, and in 3 townships from the New Mexico meridian.

Three thousand five hundred and seventy-one dollars and ninety-three cents were deposited by settlers for surveys of public land, which amount has been paid out, except \$550, with some work not yet returned.

The surveyor general states that larger appropriations for surveys are needed, and that settlements are far in advance of the surveys.

Two hundred miles of railroad were built during the past year.

The sum of \$5,500 was paid for salaries from the appropriation.

He reports that the amount deposited by individuals for office work on public surveys was \$130, and by railroad companies \$439.78; by Vigil and Saint Vrain claimants, \$67.99, and for office work, on mining claims, \$6,041; all of which added to \$5,580.22, the balance of special deposits on hand from last year, made a total of \$12,258.99 available to pay clerk hire. Of this sum, \$7,493.60 were paid out, leaving a balance unexpended, June 30, 1878, of \$4,765.39, according to statement E accompanying his report. The statement E shows 252 mining surveys with a deposit for office work of \$5,859 thereon.

The incidental expenses of the office were \$1,787.16, of which \$1,500 were paid from the appropriation, \$244.45 from special deposits for office work, and \$42.71 were in excess of the means provided for such expenses.

Of the assignment of \$2,000 for survey of private land claims, and the assignment made December 17, 1877, of a sum sufficient to meet the expenses of the examination of the boundaries of the Beaubien and Miranda grant, the sum of \$3,250.11 was paid for survey of the Sangre de Cristo grant, \$18.60 for printing, and a balance of \$731.29 is reported as unexpended.

The estimates for the year ending June 30, 1880, are, for surveys, \$104,400; for salaries, \$10,800; for contingent expenses, \$3,000. The estimates for clerk hire are made in view of the fact that the office work is considerably in arrears, viz, four years' descriptive lists, connected map of mineral claims, and arranging and indexing the field notes of the last year. He wants to survey in North Park, Middle Park, on Bear River, in the San Juan country, on the head of Gunnison River, near Pagosa Springs, and in numerous places in the mountains, to accommodate actual settlers and enable the State commissioners to make selections of lands for the State.

Dakota.—The amount of the appropriation of \$300,000, which was assigned for surveys in Dakota, is \$17,700. The amount expended was \$17,703.08, under five contracts. The number of miles surveyed and marked was 2,904, being 7 of standard, 244 of township, and 2,653 of section and meander lines.

The area subdivided was 938,086 acres in 49 townships, making a total of surveyed lands in the Territory of 18,738,760 acres, exclusive of Indian and military reservations, town sites, and mining claims.

Six contracts were made under special deposits, amounting to \$535 for field work, and \$150 for office work. Out of the latter the sum of \$139.33 has been paid.

Four town sites in the region of the Black Hills were surveyed during the year, viz: Deadwood, with an area of 745.45 acres; Ingleside, 28.64 acres, but included within the surveyed boundaries of Deadwood; Oro, containing 320 acres; and Rapid City, containing 640 acres.

Thirty-eight placer-mining claims and fifty lode claims were surveyed.

Office work: Field notes transcribed and protracted, and duplicate and triplicate plats made of the 49 townships surveyed, and descriptive lists of the same furnished the local land offices. One copy of the field notes and four copies of each mining plat of 88 mineral claims were made in his office; also much labor performed incident to the organization of a mining district before unknown in Dakota.

The expenses of the office, paid out of the appropriation, were as

follows: For salaries, \$5,500; for incidentals, \$1,500. Out of the \$2,615 deposited for office work on 88 mineral claim surveys, \$1,705 were paid to mineral clerks, leaving an unexpended balance of \$910 on June 30, 1878.

The surveyor general estimates for the surveying service in Dakota during year ending June 30, 1880, as follows: \$1,620 for survey of standard lines; \$19,000 for township and \$105,000 for section lines, being a total for surveys of \$125,620; for salaries, \$11,500, and for contingent expenses, \$2,700.

In explanation of the surveying estimates, he says he is in receipt of many petitions for surveys from settlers in numbers as high, in one case, as 59, and as 23 in another, asking for surveys of lands on which they have settled.

Disposals of land in the Territory during the year, about 2,083,078 acres, including 600,000 acres sold by the Northern Pacific Railroad Company.

He estimates that during that period settlers located upon 82,000 acres of unsurveyed land, thus making a total area taken by actual settlers in the year, of 2,165,078 acres, not including the Black Hills country, with 25,000 inhabitants, where no public surveys, except town sites, have been made. He thus shows that more than double the number of acres surveyed in the year have been settled upon, showing the demand for increased appropriation for surveys.

He reports a great increase of land under cultivation throughout the Territory, also wonderful developments of mineral and agricultural resources of the Black Hills country. He closes with extracts from a letter written to him by the general agent of the land department Northern Pacific Railroad Company, showing the rapid disposals of land granted to that road, and the necessity for additional surveys by government of the granted lands.

Florida.—Six contracts were made by the surveyor general during the year ending June 30, 1878, three of which were for the survey of islands, one for survey of a private claim, and one for survey of the lots lying between the boundaries known as the Orr and Whitner, and the Watson lines. The other contract was canceled. Work under two contracts was forwarded.

Of the eight contracts not closed at date of last annual report, two were canceled, the work in three contracts has been forwarded, and in three cases the work has not yet been returned and approved.

Sixteen plats have been furnished to the local land office, also 62 descriptive lists and several indexes. Much office work is in arrears.

The contract for surveys along the Florida and Georgia boundary has been nearly filled, and the work will be forwarded soon. The \$6,000 assigned for surveys in Florida for the year ending June 30, 1879, will be expended in surveys along the Florida line and the islands, &c., along the Gulf coast.

Estimates for service of year ending June 30, 1880, are as follows: for surveys, \$10,000; for salaries, \$6,200; and for incidentals, \$1,000.

Louisiana.—The surveys entered into during the year ending June 30, 1875, have all been completed, approved, and transmitted, except in township 14 south, range 6 west, and township 15 south, range 7 east, southwest district. The work has been paid for, except in contract of S. P. Henry, in which the sum of \$618.08 was found due but could not be paid because the unexpended balance had gone to the surplus fund.

For the year ending June 30, 1877, two contracts were made and have been partially completed. The sum assigned (\$7,000) has been paid out and exceeded by the sum of \$145.06.

For the year ending June 30, 1878, the sum of \$7,200 was apportioned to Louisiana, and two contracts were made, one of which has been completed and the work in the other partly so. The sum assigned has been exhausted, and a balance of \$361.89 is due for work in excess of the apportionment.

The work of the past year consisted mostly of the resurvey of ten townships in the "pine timber belt" in the southwest district.

Out of the apportionment of \$17,500 for surveys during the present year, two contracts have been let for the resurvey of 29 townships in the pine timber belt of the Calcasieu country.

The deputies will, without extra compensation, examine into the condition of lands entered as homesteads in that region, and report such as are abandoned and should be canceled.

A great decrease in timber depredations is reported through the instrumentality of Agent Carter and his surveyor, George R. Bradford. Settlers and homestead claimants still carry on depredations on a small scale.

Office work: But little done in the issuance of certificates of location; certificates issued on 56 claims. Several hundred applications are on file, but claimants fail to comply with the requirements of the General Land Office.

Attention is called to a great amount of office work in arrears. Field notes of 784 townships are to be copied, over 6,000 private land claims yet unpatented and requiring to be acted upon, &c. Some of this work will be brought up under the increased allowance of \$4,000 for the present year ending June 30, 1879.

Estimates for expenses of the service during year ending June 30, 1880, are as follows: For surveys and resurveys, \$64,450; for salaries, \$4,800; for arrears of office work, \$14,000; and for incidentals, \$2,000.

The resurveys are regarded as necessary to check the depredations on timber and to enable settlers to describe the lands desired to be entered by them.

Idaho.—Surveyor general reports that the surveys of the public lands for the fiscal year ending June 30, 1878, have been confined to the southern and southeastern portions of this Territory, where there are large portions of valuable agricultural lands unsurveyed, which are being gradually settled, especially along the lines in the vicinity of the Utah Northern Railroad, which is expected to be completed to Snake River, in the neighborhood of Old Fort Hall, next fall.

The surveys contracted for during the last fiscal year have all been completed, and notes returned, with the exception of Mr. Allen M. Thompson's, whose work lay in close proximity to the hostile Indians, and on this account an extension of time to complete the surveys has been granted.

The first standard parallel north ought to be extended the distance given, for many valuable mines and rich agricultural valleys lie contiguous to it.

The timber lands are being despoiled of their timber, so that unless they be surveyed the day is not far distant when the heavily timbered mountains will be stripped of timber, and thus rendered worthless to government, yet at the present rates allowed by law it is almost impossible to get competent surveyors to take a contract in the timbered and mountainous parts of the Territory.

The appropriation of \$2,500 is entirely too small for clerk hire; \$1,500 per annum is paid to the chief clerk and the remaining \$1,000 will not secure a competent draughtsman the year round, which fact is detrimental to the public service.

The surveyor general suggests the extension of the third standard parallel north of the base line to the east boundary of the Territory, which line would pass over one of the largest and finest valleys in the Territory on the Upper Payette River and run in close proximity to the celebrated "Yankee Fork Mines."

Forty-four original descriptive plats and 82 copies have been transmitted to the General Land Office and district office since the last annual report.

Four surveying contracts have been entered into; two of the surveys have been completed, and notes returned and approved and plats and transcripts transmitted. In the case of the other two the deputies are still in the field, owing to interruptions from hostile Indians.

The number of acres surveyed during the year is 677,994.74, and from the beginning of surveys to June 30, 1878, 6,696,629.53 acres.

Eight applications have been made for the survey of mineral lands and mill sites for the fiscal year ending June 30, 1878, and the amount deposited with the United States assistant treasurer for office work for mineral claims is \$241. The character of the mines is placer gold, sulphur, and gold and silver.

Amount paid for salaries, \$5,611.27.

Minnesota.—The contracts uncompleted at date of last annual report have all been completed, the work examined and approved.

Four contracts were made under the assignment of \$12,400 for year ending June 30, 1878; the work under them also completed and approved and the assignment expended except \$28.68. The surveyor general reports two contracts payable out of assignment of \$15,000 for year ending June 30, 1879.

During the year 22 townships, with an area of 406,705 acres, have been subdivided, which added to previous surveys make a total of 39,689,123 acres surveyed up to date of report.

The number of miles run and marked during the year was 1,809.

Office work: Sixty-six township plats were prepared in his office, 22 original, 22 duplicate, and 22 triplicate.

He notes the extension of several railroads and the opening up of the products of the lands to market. He renews his recommendations of last year that Congress modify the law for the disposal of timber lands.

His estimates for the service for the year ending June 30, 1880, are as follows: For field work, \$29,580; salaries, \$10,500; and incidentals, \$1,500. The sum of \$7,000 was appropriated and paid for salaries in his office, and the sum of \$1,500 for contingent expenses, during the last fiscal year.

Montana.—Under the apportionment of \$17,700 for surveys in this Territory during the year ending June 30, 1878, eight contracts were made, and the work has been done and accounts rendered to said amount, less a balance of \$296.47.

Surveys were made in 33 townships of 529,985 acres of agricultural and 94,727 acres of mineral lands.

The number of acres surveyed to June 30, 1878, is 10,272,390, including 1,410 acres of mineral claims on unsurveyed land.

Of the appropriation of \$2,750 for salary of surveyor general, a balance of \$298.98 remains unexpended, while the appropriation of \$3,000 for clerk hire was expended, except 29 cents. The incidental expenses of the office were \$1,500. Total cost of surveys, including office expenses, \$24,354.21.

The special deposits for office work during the year amounted to \$3,150, on 29 mining claims; \$2,187.90 were paid for clerk hire from

special deposits. This sum taken from \$3,150, deposited within the year, leaves \$962.10, which, applied to reduce the sum overdrawn in previous years, viz, \$1,816.03, leaves \$853.93 still overdrawn on special deposit account.

Six hundred and thirty-four plats were made in the surveyor general's office. Of these, 474 were of mineral claims, and 99 were ordinary township plats. Descriptive lists of 33 townships were prepared and sent to the local offices, and transcripts of field notes to the same number of townships made for the General Land Office.

The number of letters received was 350; number written, 942. All the office work included the writing of 8,266 folios.

The surveyor general made personal examinations of surveys in the field, with good results. The expense of examinations was \$997.21. He says that mineral surveys should be examined as well as others. The surveys of the past year embrace lands along the Muscleshell, Blackfoot, and Yellowstone Rivers. He urges higher rates per mile for surveys, and cites Ontario, Canada, where 7 cents per acre are paid for surveys, while in Montana only about 2.8 cents are paid.

He regards the restrictions made by the General Land Office June 15, 1878, of public surveys of timber lands to non-mineral as an unwise one, because miners and mill-site owners would, if the mineral timber lands were surveyed, purchase them for the timber on them, and so the government would derive a revenue where it does not now.

He recommends the survey of exterior township lines all through the Territory, and thereby the surveyor could examine and report the classes of lands in all sections, and this would enable the office to know what lands to subdivide.

Value of gold and silver shipped from the Territory during the year, \$4,480,146, while the United States assay office at Helena during the same time handled \$716,738.41 of gold and silver.

The estimates of appropriations for service of year ending June 30, 1880, are as follows: For surveys, \$34,400, and \$10,300 for salaries and incidentals.

He estimates the same rate for meander lines as for standard.

Nebraska.—The surveys contracted for out of appropriation for fiscal year ending June 30, 1878, have been completed. The lands surveyed are suitable for agricultural and grazing purposes. Field notes of 702 miles of standard and exterior and of 1,890 miles of subdivision lines have been examined and approved, and transcripts of the same have been transmitted. Descriptive lists for 36 townships have been forwarded to local land offices. A large amount of miscellaneous work, of a character usual to the office, has been performed. The estimates for fiscal year ending June 30, 1880, are for lands believed by competent persons to be suitable for agriculture and grazing. Immigration during the past year has been greater than for any previous year in the history of the State. Statistics compiled from the last report of the State Agricultural Society, relating to the population, values, and agricultural progress, accompany the report. The reports of the railroad companies show sales of lands by them for the first four months of 1878, under their respective grants, amounting to 303,991 acres and to \$1,594,147, exceeding those for any other State. The area of unsurveyed lands in Nebraska being comparatively small, the surveyor general recommends that a sufficient appropriation be made to complete the public land surveys during the next fiscal year. Estimated sum required for extension of public surveys for fiscal year ending June 30, 1880, \$45,144, and for office expenses during same period, \$11,300.

Nevada.—The appropriation of \$5,500, for salaries, was expended, except \$2.05. The incidental expenses of the office were \$1,500.15. Of the assignment of \$16,050 for public surveys in Nevada, \$3,000 were withdrawn to be transferred to California, and \$678.71 were paid out for surveys, leaving \$12,371.29 on the 30th June, 1878, applicable to contracts not then completed. Five contracts were entered into, only one of which was completed in the year. The surveyor general also reports a balance of \$10,534.63 remaining unexpended of the assignment for the year ending June 30, 1877, for public surveys.

Surveys were made in 20 townships in the past year, over an area of 233,767 acres.

One hundred and four mineral claims were surveyed, 103 applications made for patents of mineral claims, and \$3,090 deposited for office work on such claims; 548 plats were made in the office, of which 427 were of mineral claims.

The surveyor general furnishes a copy of a statement from the State comptroller showing the yield of the mines of Nevada during the year ending June 30, 1878, to be over \$47,000,000.

The estimates of appropriations for the surveying service in Nevada for the year ending June 30, 1880, are as follows: for surveys, \$45,900; for salaries, \$9,500; and for incidentals, \$3,920.

New Mexico.—The sum apportioned for public surveys in this Territory out of the appropriation of \$300,000 by act of March 3, 1877, was \$14,400, and for survey of private land claims \$35,000. Subsequently, in order to meet the expenses of survey, &c., of the five sections of Hot Springs Indian Reservation, \$1,500 was transferred from the apportionment of \$35,000 to the apportionment of \$14,400.

The amount of public surveys under said apportionment has been as follows: 72 miles of the New Mexico meridian, 318 miles of guide meridian and standard parallel; 434 miles of township lines, and 1,502 miles of subdivision lines, besides 15 miles of survey of the five sections of Ojo Cahente Indian Reservation and adjacent lands, and 15 miles of closings on parallels. For the work returned to June 30, 1878, the sum of \$12,945.50 had been paid out. The sum of \$3,150 was deposited for field work of public surveys, and \$415 for office work on same. Up to June 30, 1878, there had been paid out \$2,507.34 for the field work in running and marking 337 miles. The area subdivided within the year is 539,785.55 acres, which, added to 7,307,152.22 acres previously surveyed, makes a total of 7,846,942.77 acres surveyed in New Mexico. Surveys were made in 32 townships, four of which had not been platted at date of report.

Under the apportionment for survey of private land claims before mentioned, 47 grants have been surveyed, not all of which have been examined and platted, hence the statement of cost of survey, miles run, and area of grants surveyed is incomplete. Two of said grants, the Armen-daris, No. 34, and Anton Chico, are resurveys directed by letters from General Land Office.

The surveyor general reports a great increase in immigration to the Territory and an increasing appreciation of its mineral, pastoral, and agricultural resources. He states that exclusive of grant surveys, only about one-tenth of the Territory has been surveyed. He estimates the unsurveyed arable and irrigable lands at not less than 8,000,000 acres.

Recommendation of last year that an inspector of surveys be appointed by the department is renewed.

Mining surveys: Seven mining claims and mill sites were surveyed during the year. On five of these the sum of \$200 was deposited for

office work, no deposit being made in the other two cases. A list of nine deputy mineral surveyors is reported.

Desert land claims: Eleven copies of declaratory statements were received from the Mesilla land office.

Office work: The field notes of the surveys mentioned were examined and transcripts prepared, plats were protracted and duplicates and triplicates furnished to the General and local land offices respectively, so far as the clerical force admitted. For particulars of office work in arrears, see report in full.

A considerable amount of the platting and transcribing of field notes was done outside the office, the deputy surveyors paying for it. The surveyor general recommends that Congress reimburse these deputies, who have paid out about \$1,500 for such work as was necessary to facilitate the public business, and should have been done by his office force, but could not be by reason of the small appropriation for clerk hire.

The extra work consequent upon the grant surveys and the protests against the manner of their survey, have so occupied his clerks and himself as to require them frequently to work until midnight, and yet his office work, in respect to the private land claims, is much in arrears, as also are the descriptive lists required to be furnished to the local land offices, none having been furnished since 1868.

The amount expended for salaries was \$7,499.91 out of the appropriation of \$7,500, and \$133.03 out of the deposits for office work.

The appropriation of \$1,500 for contingent expenses, increased by receipts from subrent of office building to the extent of \$240, was expended, except 18 cents.

The appropriation for incidentals was insufficient, and he requests that Congress appropriate \$61.97 to pay for services of messenger from April 28 to June 30, 1878, and also that \$500 be appropriated for the year ending June 30, 1879, in addition to the amount already appropriated for contingent expenses.

The estimates for year ending June 30, 1880, are as follows: for surveys, \$70,000; for salaries, \$14,000; for incidentals, \$4,500, including \$2,500 for fire-proof safe and office furniture. In asking large appropriations for surveys he states that grazing lands would find a ready sale if surveyed and subject to private entry.

Private land claims: Two have been filed since last report. Evidence taken in several original hearings and reinvestigations are pending in cases of Una de Gato, No. 94, and Juan Luis Ortiz, No. 75.

He renews the recommendation of last year that Congress fix a limitation of time for filing and presenting claims, and that the courts be required to investigate and adjudicate the claims; but if the surveyor general is to be required to attend to such investigations he wants more clerks and an attorney to represent the government.

An increase in yield of gold, silver, lead, copper, and mica is reported.

The progress in building railroad and telegraph lines is given.

During the six months ending June 30, 1878, there was a total of 5.91 inches of rainfall at Mesilla, and for the year ending June 30, 1878, there was at Santa Fé 12.94 inches of rainfall.

Oregon.—Under date of August 4, 1878, the surveyor general reports all surveys contracted for under the appropriation and special deposits for year ending June 30, 1878, as completed, except a few "special deposit" surveys. Area subdivided during the year, 544,647 acres.

Twenty contracts were entered into payable from special deposits, and five contracts payable out of the assignment of \$16,050 from the appropriation of \$300,000 for surveys. The number of miles run and marked

in making these surveys was 2,036, of which 1,567 were of subdivision, 367 of exterior, and 102 of standard and meridian lines.

The amount deposited for office work on surveys, including that on mining claims, was \$496, and for field work, \$2,730. The sum of \$400 was paid out for office work on public lands and mining claims, and \$1,668 for field work.

The number of original, duplicate, and triplicate township plats and diagrams prepared in the office was 100; also, 24 plats of six mining claims.

Of the appropriation of \$1,500 for incidental expenses of office, the sum of \$1,313 was expended, leaving \$187 unexpended. Of the sum of \$7,000, appropriated for salaries of the office of surveyor general, all was expended except \$1.10.

In compliance with instructions of General Land Office, dated August 22, 1877, the lines have been protracted in the office over an area of 20,364 acres of swamps and marshes, where clearly shown to be such by maps and other evidence on file in his office.

He estimates the number of emigrants to the State as 2,500 per month during the past year, and most of whom are *bona fide* settlers, and they are in advance of the surveys. He reports many petitions from settlers for surveys, and recommends augmented rates to be allowed for "brush lands," which are more difficult and expensive to survey than the "heavy timbered and mountainous" lands, and are valuable when cleared up.

In his estimates for the next year he looks to the survey of standard and exterior lines to considerable extent, so that thereafter subdivisional surveys may be made under the special deposit system in the particular localities needed by settlers.

He wants a larger appropriation for clerk hire, to enable him to have copied into durable field books the field notes of donation claims and the old public surveys, several of which are in bundles and on scraps and sheets or books of poor paper, and, being constantly referred to, are becoming worn out and defaced.

The estimate for surveys in Oregon for the year ending June 30, 1880, is \$83,620, of which \$65,152 are for surveys in Eastern Oregon and \$18,468 in Western Oregon.

The estimate of appropriation necessary for salaries is \$9,500, and \$1,500 for incidentals.

Utah.—The surveyor general reports 42 townships surveyed during the year, embracing 237,961 acres of agricultural and timber lands, 5,041 acres of mineral land, and 16,933 acres of coal land; total during the year 259,936 acres, which added to surveys of previous years makes a total of 8,178,819 acres.

An area of 164,330 acres was disposed of at Salt Lake City office, 25,827 of which was desert land.

Surveys were returned during the year under one contract made in 1876, five contracts made in fiscal year ending June 30, 1877, and four contracts for year ending June 30, 1878. Two of the latter were unfinished at date of report. Number of miles run during the year 970, at a cost of \$8,064.69.

Sixteen thousand and fifty dollars were assigned to Utah for surveys, \$9,061.75 of which have been paid, leaving some work not yet returned.

Forty-two township plats were approved and filed in surveyor general's office, and the same number of duplicates sent to the General Land Office; also to the latter there were sent 49 transcripts of filed notes. One hundred and twenty-nine plats were sent to the District Land Of-

five. There were prepared in his office 51 plats of exterior lines, 162 plats of exterior and subdivisional lines, 460 of mining claims and mill sites, and 19 other mining plats and amendments thereto, 266 descriptive lists of public surveys, and 115 transcripts of field notes of mining claims and mill sites.

The sum of \$1,938.64 was deposited for field work on public surveys and \$246.36 for office work. There were also deposited for office work on surveys of 115 mining claims \$3,435, which added to special deposits for office work on public surveys, makes \$3,681.36. The amount paid in salaries out of special deposits was \$4,059.50, being \$378.14 more than was deposited during the year, the latter sum being drawn from special deposits in former years remaining to the credit of the office.

The appropriation of \$1,500 for incidental expenses of the office was expended except a balance of seventy cents and the appropriation of \$5,750 for salaries was expended except a balance of \$6.80.

His estimates of appropriations for the service of the year ending June 30, 1880, are as follows: For public surveys, \$55,000, including \$5,000 for connecting mineral monuments; for salaries, \$10,000, including \$2,000 for arrears of office work, and for contingent expenses, \$2,500.

Washington.—The surveyor general reports a year of unparalleled growth in agriculture in the Territory. In one county the area in wheat was increased from 28,000 acres in 1877, to 46,000 in 1878.

Two hundred miles of railroad are completed and in operation.

In spite of the Indian war, the population in some counties has more than doubled.

The five contracts for public surveys not closed at date of last annual report, are now closed, and the work having been paid for, leaves a balance of \$394.45 of the assignment for 1877, unexpended.

Under the assignment of \$16,050 for the year ending June 30, 1878, seven contracts were let, which are mostly completed. Two contracts were also let payable out of special deposits, and in four instances small surveys were made under special instructions.

The total amount paid for work under contracts out of the appropriation, was \$10,938.17, which taken from \$16,050, the amount assigned to Washington Territory, leaves a balance of \$5,111.83.

The amount deposited for field work was \$1,811.56. Of this \$1,610.08 was paid for survey, leaving an excess of \$201.48 over cost of field work.

The sum of \$290.44 was deposited within the year for office work on public surveys, which added to \$122.44 on hand and unexpended from former years, made \$412.88 available to pay clerk hire. Of this sum \$350 were paid out, thus leaving \$62.88 unexpended June 30, 1878.

The appropriation of \$6,500 for salaries was paid out. This added to \$350 paid for clerk hire from special deposit account, and \$1,500 for incidental expenses of office, makes a total of \$8,350 as the cost of maintaining the surveyor general's office for the year.

The surveyor general calls attention to the disproportion of the expense in office work when small appropriations are made for surveys compared with the same under large appropriations for surveys. He contrasts the appropriations for surveys and the office expenses for several years past, and shows that the expense of maintaining the office under a small appropriation for surveys is about as much as under a large one.

The number of miles surveyed in 1878, was 4,060; number of acres surveyed, 1,398,670.93; number of plats and tracings made in his office, 226. His estimates for the surveying service for the year ending June 30, 1880, are as follows: For surveys, \$109,912; for salaries, \$10,500; and for incidental expenses, \$2,000.

Wyoming Territory.—The surveys made during the year ending June 30, 1878, are reported by the surveyor general as follows: One hundred and eighty-two miles of standard and meridian lines; exterior lines of 52 townships, in length 451 miles; also 1,050 miles in subdividing 19 townships, four of which are within the Union Pacific Railroad grant.

The number of acres surveyed is 392,717, which, added to the area previously surveyed, makes 7,926,173 acres, in 381 townships.

Two contracts for surveys under appropriation of March 3, 1877, are not yet completed.

The area of coal lands surveyed in 1877 is reported as 27,454 acres, which, added to previously surveyed coal lands in the Territory, makes 262,824 acres.

Twenty-six descriptions of desert-land claims were received from the Cheyenne office, and one claim from the Evanston office, with an aggregate area of 9,286.25 acres.

Many new settlements of stock raisers and farmers are reported in the valley of the North Platte, on Bear River, Medicine Bow, and Laramie Rivers.

Besides miscellaneous work, there were prepared in the office 19 original township plats and the same number of duplicates and triplicates for the General Land Office and local land offices respectively, and for the latter there were also prepared 38 lists descriptive of corners, quality of soil, &c., in the 19 townships. Diagrams of the surveys of standard and exterior lines and transcripts of all the field notes of surveys were prepared and sent to the General Land Office.

The amount paid for salaries during the year was \$6,487.98, of which all but \$238.46 was paid out of the regular appropriation, the latter sum having been paid out of special deposits for office work.

The sum of \$1,500 was appropriated for rent and other incidental expenses of the office. Of this amount \$945.45 were expended, the remainder, \$554.55, reverting to the United States Treasury.

The estimates submitted for the year ending June 30, 1880, amount to \$58,900, of which \$46,400 is for surveys, \$10,500 for salaries, and \$2,000 for contingent expenses.

The surveyor general remarks that he has discontinued the services of his principal and assistant draughtsman and transcribing clerk on account of a deficiency in the appropriation for this year.

I add a statement of the areas surveyed in the States and Territories, severally considered, both of public lands and private claims, during the fiscal year ending June 30, 1878:

States and Territories.	Acres.		States and Territories.	Acres.	
	Private claims.	Public lands.		Private claims.	Public lands.
Alabama.....		34. 75	Montana.....		624, 694. 44
Arizona.....		418, 375. 18	Nebraska.....		630, 164. 02
California.....	36, 350. 09	1, 202, 618. 59	Nevada.....		188, 656. 38
Colorado.....	1, 038, 195. 16	1, 113, 613. 41	New Mexico.....	3, 281, 832. 20	541, 428. 82
Dakota.....		939, 198. 01	Oregon.....		611, 489. 76
Florida.....		1. 75	Utah.....		263, 226. 74
Idaho.....		438, 306. 30	Washington.....		573, 316. 51
Illinois.....		2, 692. 47	Wyoming.....		135, 281. 13
Louisiana.....					
Minnesota.....		357, 913. 57	Total.....	4, 356, 377. 45	8, 041, 011. 83

Survey of Dakota and Wyoming boundary.

By act of March 3, 1877, in addition to the appropriation for general surveys before stated, the sum of \$7,000 was appropriated for the survey of that part of the eastern boundary of Wyoming which is common to Dakota, and is that part of the twenty-seventh meridian of longitude west of Washington Observatory, lying between the forty-third and forty-fifth degrees of north latitude. By direction of the department, a contract for the work was made by this office on April 6, 1877, with the designated astronomer and surveyor, Rollin J. Reeves. The survey was begun on June 6, 1877, and was finished August 1, 1877. It was found satisfactory and was approved December 10, 1877. This boundary was fixed by act of Congress approved July 25, 1868 (15 Stat., p. 178), and extends through the Black Hills and through that part of the lands recently ceded to the United States by the Sioux Indians and lying between the forty-third and forty-fifth parallels north latitude. The initial point of the survey was the monument on the east boundary of Wyoming, and common to and marking the northwest corner of Nebraska and the southwest corner of Dakota. The beginning corner stands on a nearly level open prairie, covered with bunch grass, on an elevation of 3,886 feet above the sea level. From this point the astronomer proceeded due north to the intersection of the forty-fifth parallel of north latitude, which he established by astronomical observations, and reached at a distance of 138 miles and 32 chains from the starting point.

Up to the thirtieth mile of the boundary the country is mostly open prairie and grazing land. At 30 miles and 71 chains the South Fork of the Cheyenne is intersected, and after crossing this stream the soil is poorer. From the forty-second mile, where the Black Hills were reached, the line runs over a rough and mountainous country as far as the one hundred and seventh mile. From there to the end of the line the country is open broken prairie. Between the fifty-second and seventieth miles the line crosses many deep, rocky cañons.

The two highest points on the line are at distances of $78\frac{1}{2}$ miles and $92\frac{3}{4}$ miles, respectively, from the initial point; the elevation at the former being 6,526 feet and at the latter 6,436 feet; the general elevation of the Black Hills being about 6,000 feet above sea level.

The Wyoming-Dakota boundary is marked chiefly by mile posts of cottonwood, pine, or cedar, and with pits and witness trees, when such trees were near enough to note their distance and bearing. The posts are marked on the north face "1877," on the east "Dakota," on the west "Wyoming," and on the south the number of miles the post stands north of the initial point.

At the approximate terminal point of the intersection of the twenty-seventh meridian west longitude with the forty-fifth parallel north latitude, a temporary post of cottonwood was planted and three pits were dug. The post was marked on the east "Dakota," on the northwest "Montana," on the southwest "Wyoming," and on the southeast "45 north latitude."

By order of the Secretary of War, an escort was directed to be furnished to accompany the surveyor, and some twenty soldiers and an officer were detailed for that purpose. When the party had gone through the Black Hills, and were nearly through the survey, on July 21 the Indians attacked them, and the escort not being sufficient to repulse the attack, the surveyor reports that he lost all his provisions, wearing apparel, and carefully-written notes of the survey, with maps, thus compelling him to rewrite his notes from the memoranda of the chainmen.

After several days' delay and receiving a re-enforcement of soldiers, the survey was completed.

The cost of the survey was \$7,000, the sum appropriated by Congress for the purpose.

Resurvey of the boundary between the State of Arkansas and the Indian Territory.

The act of Congress of March 3, 1875 (18 Stat., p. 476), provided for the resurvey of the boundary line between the State of Arkansas and the Indian Territory, and this work was concluded during the fiscal year ending June 30, 1878, having been commenced and to a great extent prosecuted during the previous fiscal year.

The eastern boundary of that portion of Indian Territory which divides the lands of the Choctaw Nation from the State of Arkansas is 120 miles $\frac{62}{100}$ of a chain in length. Its position is defined by the first article of the treaty between the United States and the chiefs and headmen of the Choctaw Nation which was concluded at the city of Washington January 20, 1825, and which reads as follows:

The Choctaw Nation do hereby cede to the United States all that portion of the land ceded to them by the second article of the treaty of Doak Stand, as aforesaid, lying east of a line beginning on the Arkansas one hundred paces east of Fort Smith, and running thence due south to Red river; it being understood that this line shall constitute and remain the permanent boundary between the United States and the Choctaws; and the United States agreeing to remove such citizens as may be settled on the west side to the east side of said line and prevent future settlements from being made on the west thereof.

In accordance with the foregoing, the boundary was originally surveyed in the year 1825, and the lines of the public land surveys of the State of Arkansas were closed thereon in 1827. As the land-marks were growing dim from age, the boundary was retraced, by order of the government, in the year 1858. This work was accomplished by Deputy Surveyors A. H. Jones and H. M. C. Brown, acting under instructions from the Commissioner of Indian Affairs. By this retracement it was discovered that the line as originally established was not meridional, as intended and required by the treaty, and that its divergence to the west, as the line proceeded southward from the Arkansas, had led to a serious encroachment upon the Indian lands.

By the act of Congress of March 3, 1875, before mentioned, the line as originally surveyed and marked was declared to be the permanent boundary, and the honorable Secretary of the Interior was authorized to provide for a second retracement of the line, to be marked in a distinct, and permanent manner. For this work and the retracement of the Eastern Cherokee boundary line the act of appropriation of March 3, 1877, provided the sum of \$11,880, a portion of which was intended to cover the cost of planting suitable iron posts at the end of each mile of either boundary.

The honorable Secretary of the Interior having designated Henry E. McKee as a suitable person to retrace the boundary lines, a contract, accompanied with full instructions, was entered into under date March 12, 1877, and the work of retracement of the Choctaw boundary was commenced by him on April 16, 1877, and completed on the 24th of May following. The contract and instructions requiring that the true treaty line should be run and temporarily marked for purposes of computation, that work was executed in parts of June and July of the same year.

The northern extremity of the Choctaw boundary originally rested upon the south bank of the Arkansas River, but in consequence of

changes produced by the currents, that point is now situated upon a sand bar in the stream, and is at times inaccessible. Foreseeing the loss of so important a monument, the Army officers at that time stationed at Fort Smith took pains to preserve full evidence of its location by planting a large post at a safe distance from the bank of the river. This means of reference was made use of by Deputies Brown and Jones, in 1858, and, as they certify, the point so designated was found to agree with other landmarks of the original survey. In order to perpetuate the line as thus preserved, the last aforementioned deputies, in accordance with their instructions, erected a permanent stone monument at a point 26.15 chains south of the corner common to the Choctaw and Cherokee lands, which monument is known and referred to as "initial point."

This initial monument was the starting point of the retracement of the Choctaw boundary by Deputy McKee, upon the completion of which a meridional or true treaty line, commencing at the same initial point, was extended thence to the north bank of Red River. This latter line was run but not permanently marked, its sole object being to determine the quantity of land embraced between it and the established boundary, in order that the Indians might be properly compensated for the area of land unintentionally added to the State of Arkansas by the original survey of 1825. This line was connected, as the instructions required, at frequent intervals by lines running west to the permanent boundary. In the retracement of 1858 a meridian was projected astronomically to a point six miles south of the initial monument and a measurement made thence west to the boundary. A similar measurement between corresponding points of the retracement of 1877 shows practical coincidence with that recorded in the retracement notes of 1858. The area embraced between the treaty line and the actual boundary was found to be 137,500.12 acres.

Numerous landmarks of the retracement of 1858, consisting principally of witness trees and the remains of mounds marking the mile points, were found by Deputy McKee, and at intervals tree marks of the original survey were discovered.

The boundary line is now marked at each mile by an iron post octagonal in form, 5 feet long and 4 inches in diameter, cast hollow, with a shell of half an inch, appropriately marked on four sides by raised letters and figures cast thereon. The posts are set at the depth of $2\frac{1}{2}$ feet below the natural surface of the ground. A conical mound $1\frac{1}{2}$ feet high and sloping to a base of 5 feet diameter is raised about the post. Adjacent to the post pits are dug in line and on either side, and wherever practicable, the post is witnessed by bearing trees suitably blazed and inscribed.

The deputy engaged in the last retracement reports no important encroachment upon the Choctaw lands by individuals other than cases of the extension of cultivated fields of Arkansas across the boundary line by common consent of parties united in interest by intermarriage of whites and Indians.

The lands along this boundary, excepting those in the valleys of the principal streams, are described as being rocky, rough, and in some cases mountainous. Many tracts noted in the retracement of 1858 as cultivated fields have since been abandoned. The country is well supplied with pure water, and is regarded healthy. The mountain regions abound in pine timber, which is, however, too remote from market to be of present value. No deposits of valuable minerals were noticed during the progress of the surveys.

Upon the completion of the Choctaw boundary, the deputy surveyor proceeded, in accordance with law and instructions, to restore that portion of the eastern Cherokee boundary which lies between the northwest corner of the State of Arkansas and the northeast corner of the Choctaw lands.

This boundary was defined by a convention concluded at the city of Washington May 6, 1828, which required its establishment upon a direct line extending between the above-mentioned points. By direction of the Office of Indian Affairs this line was originally run in 1831, and it became the legalized boundary, though subsequent observations have revealed the fact that the line curves slightly to the westward, encroaching to that extent upon the Indian lands.

Subsequent also to the original survey of this boundary the line between the States of Missouri and Arkansas was resurveyed, and the monument which marks the northwest corner of the State of Arkansas was moved 4 chains 83 links to the southward from its original position.

In accordance with the provisions of a second treaty, concluded July 19, 1866, the boundary was resurveyed under direction of the Office of Indian Affairs. This work was accomplished under the supervision of two commissioners, one of whom was chosen by the United States and the other by the Cherokee Nation. This line, run in the year 1871, proved to be erroneous, from the fact that the initial monument of the Choctaw boundary heretofore described, which was placed at a safe distance south of the Arkansas River, was taken as the southern terminal point of the Cherokee boundary. This error carried the line of 1871, at its point of greatest departure, about 10 chains west of the legally established boundary.

The resurvey of 1877 had, then, a threefold object: First, the re-establishment and permanent marking of the original line; second, the determination of the quantity of land embraced between the established boundary and a true treaty or direct line; third, the obliteration of all evidences of the survey of 1871.

The resurvey of the boundary proper was commenced at the re-established monument at the northwest corner of the State of Arkansas, July 12, 1877, and the field work, including the obliteration of the landmarks of the line of 1871, terminated on the 25th of August following. The distance from the northwest corner of Arkansas to the post on a sand bar in the Arkansas River which marks the corners of the Choctaw and Cherokee lands was found to be 76 miles 72.14 chains. The bearings of sections of line between the different mile posts were found to vary from south $6^{\circ} 57'$ east to south $10^{\circ} 11'$ east; whereas the true bearing of a direct line extending between the points named proved to be south $7^{\circ} 45'$ east. The area of Indian land thus improperly transferred by the original survey to the public lands lying in the State of Arkansas amounts to 2,539.54 acres.

The original line was identified at many points, usually from one to three miles apart, by reference to original witness trees, all other evidences of that survey having disappeared. This boundary line is marked in the same permanent manner as the Choctaw line, already described.

The face of the country along the eastern Cherokee boundary is generally broken, possessing an abundant supply of timber of inferior quality for mechanical purposes. The principal body of prairie land lies in the vicinity of Maysville, a village of about 500 inhabitants, situated some six miles south of the Missouri and Arkansas State line. The western limits of the town are identical with the established boundary. The most productive lands lie in the narrow valleys of the principal streams

crossed by the boundary, but good and well cultivated farms are occasionally found among the uplands, particularly those lying north of the Boston Mountains. In the last-named section springs of good water are abundant.

Survey of Cherokee lands in North Carolina.

In the last annual report of this office may be found, on pages 70 and 71, a statement of the partial survey which had been made of Cherokee lands in North Carolina, under the act of Congress of June 23, 1874. A contract for further surveys was subsequently entered into with M. S. Temple, esq., of Greenville, Tenn., and the following instructions were given to him by this office, under date of the 8th April, 1878, viz :

Having entered into contract with you this day for the survey of the lands of the Eastern Cherokee Indians, recently purchased from William H. Thomas, and described in the deed dated October 9, 1876, executed by William Johnston, L. M. Johnston, James W. Terrell, and Thomas D. Johnston to the Commissioner of Indian Affairs, copy of which has been furnished you, you will be governed in the execution of the work contracted for by the terms of said contract and the following special instructions, to wit:

The lands to be surveyed are situated in Graham, Jackson, and Cherokee Counties, in the State of North Carolina, and include sixty tracts, as enumerated in the deed above referred to.

It will be your duty to trace and mark each of the tracts described in the said deed, in accordance with the descriptions of the same as shown by the county records, by planting appropriately marked posts, of good material, of the size prescribed in instructions from this office dated March 30, 1875, for the survey of the Qualla boundary.

In regard to running, marking, and describing the lines, corners, and topographical features, you will be governed by said instructions of March 30, 1875, so far as the same may be applicable.

In carrying out your contract it will be necessary to retrace and mark the several tracts as they were originally marked, and for that purpose it will be necessary to procure transcripts from the records of the several counties, showing the description of the original lines. The expense of obtaining said transcripts must be covered by the \$1,500 allowed for these surveys, there being no other means available for paying for the same.

In a letter to this office in regard to these surveys the Commissioner of Indian Affairs states that "the object of the surveys recommended by this office was to obtain a more perfect description of the lands to be conveyed, that the same might be incorporated in a new deed, to be substituted for the one herewith, conveying the lands directly to the Indians in fee simple."

Unless a contract can be made for the survey of these lands so as to furnish a well-defined, accurate, and complete description of all the tracts embraced in said deed, the purpose for which a survey was requested will not be reached.

With a view, therefore, to affording an accurate description of each tract, you will so describe the initial point of each survey and all the lines and corners thereof that the Commissioner of Indian Affairs may be enabled, when conveying the lands to the claimants, to describe each tract accurately by metes and bounds. Your field notes should show the course and distance from the initial point of each survey to a corner of an adjacent survey, or to some prominent landmark. Where a line is a common boundary, either *wholly* or *in part*, between two claims, the extent to which said line forms a common boundary must be expressed in the field notes and indicated upon your diagrams. The diagrams of the separate tracts should show the connections with surrounding claims, also the numbers thereof. In addition to the diagrams of the individual tracts accompanying the field notes, you will submit connected plats of the claims in each county.

The *form* of field notes of the survey of a private claim given on pages 66 to 68 of the manual of "Instructions to Surveyors General" is applicable to the surveys under your contract, and you will adopt the same.

In transcribing your field notes upon the paper furnished by the department, you will confine the writing *between the red lines*; the narrow column on the left is for the measured distances. *Both margins* are to be left blank (see sample herewith).

For use in the field and in making returns of your surveys to this office, I transmit, by this day's mail, one dozen field books, four quires of field-note paper, and five yards of tracing linen; the latter for the connected diagrams required by these instructions.

Returns of surveys under this contract have been made, and are now undergoing examination in this office.

Survey of townships 18 and 19 north, range 1 west, Michigan.

Under authority of act of Congress approved February 16, 1877 (19 Stat., p. 231), townships 18 and 19 north, of range 1 west, Michigan, were surveyed by T. Gale Merrill under contract dated March 31, 1877, entered into with this office, there being no surveyor general in Michigan, and returns thereof were made July 17, 1877, and being found correct were approved August 3, 1877.

In many cases the corners of the original survey, formerly reported as fraudulent, were found, and under instructions from this office the surveyor adopted such corners where found in their proper places.

The expense of the survey was \$2,136.22, which was paid from the appropriation of \$2,500 made for the purpose by said act of February 16, 1877.

The following circular has been issued by this office in reference to the survey of desert lands under the act of Congress of March 3, 1877:

DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,
Washington, D. C., June 25, 1878.

UNITED STATES SURVEYOR GENERAL:

SIR: The following instructions are issued under the act of Congress approved March 3, 1877, entitled "An act to provide for the sale of desert lands in certain States and Territories." (United States Statutes at Large, vol. 19, page 377.)

By the terms of the act the quantity to be entered by any one person is limited to one section, or to a tract not exceeding six hundred and forty acres, and it is required to be in compact form.

If the land is surveyed it is required to be particularly described, and if unsurveyed it shall be described as nearly as possible without a survey.

As the land to be entered under this act is public land, and no provision is made for any departure from the rectangular system in the survey of claims under said act, the claimants on unsurveyed land will be required to take their claims by legal subdivisions when the lines of public surveys shall have been extended over the same.

You will, therefore, instruct your deputies that in subdividing townships when they reach one of these desert land claims they will extend their lines in the usual manner, and from the best information obtainable represent by an outline sketch the approximate limits of the reclaimed tract, or the tract in process of reclamation, so that the same may appear upon the township plat when prepared in your office.

In case a survey is asked of claims under said act which are isolated from the regular progress of public surveys, and the land intervening is not of a character authorized to be surveyed under existing laws, in order to reach such claims it will be necessary to extend the nearest standard line to the neighborhood of such claims, and then extend the proper township and section lines sufficiently to embrace such claims.

This extension will only be authorized in cases where a person has made satisfactory proof to the register and receiver of the reclamation by conducting water upon the tract within the period of three years from the filing of his declaration therefor in cases where the party desires to make payment and obtain patent for the land, and after the evidence of reclamation has been submitted to this office and authority is given for such extension.

Very respectfully,

J. A. WILLIAMSON,
Commissioner.

The divisions of this office having charge of matters relating to surveys and draughting report with regard to the character and extent of the work done during the fiscal year, and the present condition of the work, as follows, viz:

Number of letters received	2, 574
Number of letters written	2, 239
Number of folio pages of record occupied	1, 765
Number of reports on adjusted accounts	1, 090
Number of folio pages of record occupied	1, 090
Amounts of adjusted and reported accounts	\$532, 786. 76

In the draughting division: 1. Work on the annual map of the United States.

2. Two special maps of States where the lines of public surveys have been completed, viz, Michigan and Wisconsin.

3. Volumes of field notes arranged according to States and Territories, and particular bases, principal meridians, townships, and ranges, indexed for easy reference—61.

4. Railroad maps constructed with lateral limits of land granted to different railroad companies and copies of same for land offices; also tracings of railroad maps—151.

5. Exemplifications of plats, copies of town sites, tracings of private land patents, and copies of same in record books; also other records prepared for applicants under act of Congress approved July 2, 1864—1,508. In addition to this, surveys of islands and lakes have been tested, areas calculated, and diagrams of same made; also other miscellaneous calculations and protractations.

6. The work of this division, in consequence of the insufficiency of the draughting force has constantly been accumulating, and is now greatly in arrears. In order to keep up the current work called for by the different divisions of the office a certain class of work had to be abandoned altogether. This work waiting to be completed and absolutely necessary for the best interest of the office is as follows:

1. Arranging and indexing field notes and plats.

2. Twenty-nine field note diagrams forming the index volume.

3. Sixteen railroad volumes. These are important as they are the only evidence the office will have giving a complete history of each road. The railroad withdrawal maps in use by the different bookkeepers are so injured by incidental wear and tear that unless this work is soon completed it will be difficult to reproduce some of the maps at all.

4. The tracing of the annual map of the United States was progressing very favorably when, in consequence of the reduction of force, it had to be abandoned. Very nearly two-thirds of this work has been completed.

The following table exhibits the comparative progress of surveys and the disposal of public lands during the period of eleven years ending June 30, 1878, also cost of surveys:

Fiscal year ending June 30.	Surveying districts.	Land offices.	Cost of surveys, including salaries and contingent expenses.	Number of acres—	
				Surveyed.	Disposed of.
1868.....	13	68	\$325, 779 50	10, 170, 656	6, 665, 742. 00
1869.....	12	66	497, 471 00	10, 822, 812	7, 666, 151. 00
1870.....	17	81	560, 210 00	18, 165, 278	8, 095, 413. 00
1871.....	17	83	683, 910 00	22, 016, 607	10, 765, 705. 00
1872.....	17	92	1, 019, 378 66	29, 450, 939	11, 864, 975. 64
1873.....	17	90	1, 305, 531 67	33, 834, 178	13, 030, 606. 87
1874.....	17	96	995, 353 39	29, 492, 110	9, 530, 872. 93
1875.....	17	97	1, 030, 180 24	26, 077, 531	7, 070, 271. 29
1876.....	17	97	1, 269, 321 94	20, 271, 506	6, 524, 326. 36
1877.....	16	99	550, 054 03	10, 847, 082	4, 849, 767. 70
1878.....	16	98	532, 786 76	8, 041, 012	8, 686, 178. 88

DISPOSALS OF PUBLIC LANDS.

I now invite attention to the operations of the last fiscal year for disposing of the public lands. This object was pursued through the agency of 98 district land offices, in the methods contemplated in the laws providing for sales at ordinary private entry, for pre-emptions, for entries for

homestead, timber culture, town-site, and mining purposes, and in the laws making grants for specific objects and exceptional provisions with regard to abandoned military and other reservations. The first mentioned method of disposal is confined to lands which have been brought into market at public sale and not in any manner withdrawn therefrom, this being the simplest method known to the land system, and one in which if the proceedings are regular, and the money paid, the patent conveying the fee simple issues as a matter of course. The quantity of land thus disposed of during the fiscal year, with the additional quantity embraced in pre-emption cash entries allowed during the same period, in cash entries allowed in commutation of homesteads, and in other cash entries, allowed under special laws, of lands not subject to ordinary private entry, makes up the total of cash entries before given as 877,555.14 acres.

Pre-emptions.

Under the pre-emption laws, public lands are disposed of to actual settlers only, they being allowed a preference right to purchase the lands covered by their settlements on prescribed conditions and in limited quantities. Cases frequently arise under these laws involving very nice and difficult questions. A special division of the clerical force of this office is charged with the duty of examining matters involving the principle of pre-emption under existing laws, as entries under the "pre-emption" and town-site laws, sales of Osage Indian trust and diminished reserve lands, and claims of parties who purchased from Mexican grantees or their assigns, lands within grants subsequently rejected, or which were excluded from final survey of confirmed grants. The condition of the work in the pre-emption division is thus stated, viz :

Contested cases, in division, undecided July 1, 1877	249
Received during the year ending June 30, 1878.....	532
Total	781
Decided during the year	278
Referred to other divisions	15
	293
In division, undecided July 1, 1878	488

During the year there were closed on the docket by decisions of the department, or on failure to appeal from decisions of this office, 318 cases.

By a comparison with the statement made one year ago (Annual Report, 1877, page 94), it will be seen that, while the number of new cases received has been about the same, there have been fewer cases by over one hundred decided during the past year, and, consequently, the statement of undecided contested cases indicates an increase of nearly one hundred per cent.

This is mainly the result of the reduction in the clerical force of the division. With the present force it will require nearly two years to adjudicate the cases on file July 1, 1878, without examining a single case received since that date.

In regard to the pre-emption entries in which there is no contest the increase in arrearages is more marked. At the close of the fiscal year ending June 30, 1877, there remained in the division undisposed of 415 of these cases; but at the close of the last year we found upon our files, undisposed of, 3,140 cases, as follows :

Not acted upon	2,058
Suspended for various causes	1,082

During the year three thousand "*ex parte*" entries were examined and approved for patenting.

Letters received during the year	5, 488
Letters written	5, 990

The latter covering 4,548 pages of record.

Section 2262, Revised Statutes, provides that the affidavit of the claimant in pre-emption cases shall be taken before the register or receiver of the land-district in which the land is situated. This requirement of the law has worked a hardship in many cases which have been brought to the attention of this office. It often occurs that pre-emptors are compelled to travel hundreds of miles in order to comply with this statute, and in many cases parties are delayed in their efforts to enter their claims on account of sickness or other disability, which prevents their attendance at the local office.

The testimony of witnesses in pre-emption cases can be taken before any officer authorized to administer oaths, and by recent legislation the affidavits and testimony of witnesses in homestead cases can be taken before a judge or clerk of any court of record in the county where the land is situated.

I would therefore recommend that section 2262 be so modified that the pre-emptor's affidavit may be taken before a judge, or, in his absence, before a clerk of any court of record in the county in which the land claimed may be situated, as the law now allows of homestead final affidavits and proof being taken.

In reference to the subject of town-sites on the public lands, there has been no new legislation, and no important decisions have been rendered during the fiscal year.

The act of May 23, 1844 (5 Stat., p. 657), which provided for the entry of town-sites at the minimum price, was repealed by the act of July 1, 1864 (section 2382, Rev. Stats.). The last-named act provided for the sale of the lots in any town, which it provided should not contain more than 4,200 square feet each, at not less than \$10 per lot. This law had not long been in force when it was found that a statute similar to that of 1844 was demanded by the people. The act of March 2, 1867, (section 2387, Rev. Stats.), was passed, which embodied some of the provisions of the act of 1844, with a few needed alterations and additions as to the number of acres, inhabitants, &c. The inhabitants of hundreds of towns have availed themselves of the privileges of this act, and have made entries of the public lands thereunder.

The principles of the act of 1864 have been in force more than fourteen years, and but *six* towns—one in California, two in Nevada, and three in Oregon—have filed plats with a view of obtaining lands under its provisions. This law provides for the patenting of each lot by the government, which involves a great amount of labor by the clerical force of this and the district land offices.

More than \$100 per acre is realized by the government for any lands sold under this law, and it is natural that the inhabitants of the towns desiring title to the public lands should prefer a cheaper mode of obtaining such title, which is afforded in sections 2387, 2388, and 2389 of the Revised Statutes.

For the sake of uniformity, I would respectfully recommend the repeal of sections 2382, 2383, 2384, and 2385 of the Revised Statutes, with the provision, however, that the six towns which have already filed plats under said act of July 1, 1864, and the act of March 3, 1865, may obtain titles to their lots thereunder, or that the lots not yet disposed of may

be sold to the mayor or proper county judge, acting as trustees for the occupants thereof, at a stated price, say \$1 per lot of 4,200 feet.

The following town sites have been patented since September 1, 1877, viz :

	Acres.
Sun City, Kans.	163. 25
Howard City, Kans.	366. 24
Belmont, Nev.	160
Tybo, Nev.	120
Portage, Utah	160
Heneferville, Utah	240
Ouray, Colo.	300
La Grange, Cal.	50
Malad City, Idaho.	280

In addition to the foregoing, San Juan, Wash., 153.45 acres, has been patented under the county-seat act of 1824.

Sixteen entries, covering 59 lots in Sault Ste. Marie, Mich., have been patented under the ninth section of the act of September 26, 1850. (9 Stats., p. 469.)

An additional entry has been granted to the town of Auburn, Cal., under the fourth section of the act of March 3, 1877. (19 Stat., p. 392.)

In regard to appeals from decisions of district land officers in pre-emption contested cases, this office addressed circular instructions to the registers and receivers, under date of the 20th September, 1878, as follows, viz :

DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,
Washington, D. C., September 20, 1878.

To REGISTERS and RECEIVERS
United States Land Offices :

GENTLEMEN: A modification of the rules has been decided upon in the adjudication of contested cases where the parties having claims of record under the pre-emption laws fail to appear and sustain such claims after due notification, or where, having appeared, the unsuccessful party fails to appeal from the decision of the local officers within the time prescribed.

The practice of this office has been to require the party desiring to clear the record and enter the tract, to give notice to adverse claimants of the time fixed for a hearing of the case; and, if no opposition is offered, the proofs of abandonment are forwarded to this office, a decision rendered, and, after the expiration of the period allowed for appeal, the claimant is allowed to enter the land, the adverse filings having first been canceled.

Section 2273, Revised Statutes of the United States, provides that "all questions as to the right of pre-emption arising between different settlers shall be determined by the register and receiver of the district within which the land is situated; and appeals from the decision of district officers in cases of contest for the right of pre-emption, shall be made to the Commissioner of the General Land Office, whose decision shall be final unless appeal therefrom be taken to the Secretary of the Interior."

On the 12th November, 1877, you were advised by my circular relating to appeals from the decision of the local officers that "the appeal must be in writing, definitely setting forth in clear and concise terms the specific points of exception," and that this office would judge as to the sufficiency of such appeals.

In future, under the pre-emption law, a failure to appeal from the decision of the local officers will be considered final as to the facts in the case; and such decision will be disturbed by this office only where fraud or gross irregularity is suggested on the face of the papers, where the decision is contrary to existing law, or in the event of disagreeing decisions by the local officers, in any of which cases the Commissioner of the General Land Office will revise or modify the decision of the local office, at his discretion, under the general supervisory powers conferred upon him by section 453 of the Revised Statutes.

In cases where the defendants, or any of them, appear, should no appeal be taken during the prescribed time, you will allow an entry by the successful claimant and transmit with it the record of the case to this office, accompanied by your joint decision and report as to the status of the land.

When notifying the parties of your decision, they shall also be informed of the necessity of an appeal therefrom, to insure consideration by this office. When, after due and legal notice of thirty days, *no appearance* is entered by any defendant and the tes-

timony clearly shows that he has abandoned the land and changed his residence to another part of the country, you are authorized to allow an entry by the actual settler, and send up with his proof and papers the testimony as to the abandonment of the tract by the adverse claimant, and if no appeal from your decision be taken, it will be considered final, and the entry, if regular, will be disturbed only in case of the exceptions mentioned above or where a rehearing is ordered by this office on the receipt of affidavits setting forth good and sufficient reasons for such action.

Care should be taken to give the parties proper legal notice of the hearing, evidence of service to be filed with the other papers in the case.

Very respectfully,

J. A. WILLIAMSON,
Commissioner.

DEPARTMENT OF THE INTERIOR,
September 23, 1878.

Approved.

A. BELL,
Acting Secretary.

The following decisions, rendered since the date of the last annual report of this office, are here presented as having an important bearing on pre-emption rights.

M'KEE *vs.* WALTHER ET AL.

The local land officers should not receive applications to file for or enter a tract of land while in a state of reservation, and hold the same to advance the interest or accommodate any individual.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., April 19, 1878.

SIR: I have considered the case of Uri McKee *vs.* Leonard C. Walther, John O'Mara, et al., involving the W. $\frac{1}{2}$ of section 13, township 2 south, range 11 east, Stockton land district, California, on appeal from your decisions of March 20, 1876, and June 27, 1877.

The township plat was filed in the local office on July 26, 1858.

The lands in contest were formerly within the limits of the withdrawal of November 30, 1867, for the Stockton and Copperopolis Railroad Company. The grant to said road was declared forfeited by act of Congress approved June 15, 1874, and the lands were restored to pre-emption and homestead entry September 4, 1874, pursuant to published notice given under instructions from your office, dated July 9, 1874.

Uri McKee filed declaratory statement 7616, September 4, 1874, for the W. $\frac{1}{2}$ of N. W. $\frac{1}{4}$ and W. $\frac{1}{2}$ of S. W. $\frac{1}{4}$ section 13, 2 S., 11 E., alleging settlement same day.

Leonard C. Walther filed declaratory statement 7737, September 4, 1874, for the N. W. $\frac{1}{4}$ section 13, 2 S., 11 E., alleging settlement August 18, 1874.

Peter Finnegan filed declaratory statement 7796, September 4, 1874, for the W. $\frac{1}{2}$ of N. W. $\frac{1}{4}$ section 13, 2 S., 11 E., alleging settlement September 4, 1874.

Timothy Ryan filed declaratory statement 7738, September 4, 1874, for the W. $\frac{1}{2}$ N. E. $\frac{1}{4}$ and E. $\frac{1}{2}$ of N. W. $\frac{1}{4}$ section 13, 2 S., 11 E., alleging settlement March 16, 1874.

John O'Mara made homestead entry No. 2053, September 4, 1874, for the S. W. $\frac{1}{4}$ section 13, 2 S., 11 E.

John L. Sullivan filed declaratory statement 7655, for the E. $\frac{1}{2}$ of N. W. $\frac{1}{4}$ and E. $\frac{1}{2}$ of S. W. $\frac{1}{4}$ sec. 13, 2 S., 11 E., September 4, 1873, alleging settlement same day.

The testimony shows that McKee and Sullivan went to the local land-office on the 2d or 3d of September, 1874, and executed their declaratory statements, dating them September 4, 1874. Settlement was alleged as of September 4, 1874, and said papers were left with the receiver or clerk to be filed when the lands came into market, and they were placed on record as having been filed September 4, 1874. Said parties then procured lumber and teams and started for the land. They arrived on the land shortly after sunrise on the morning of September 4, and commenced building their houses before 12 o'clock m. on that day. The local land office was not opened for business until 10 o'clock a. m. on September 4, 1874, but the land was subject to settlement after twelve o'clock on the night of September 3, 1874. (*Timmons vs. Gleason, Copp's Land-Owner for August, 1876, p. 71.*)

You held that the filings of McKee and Sullivan were valid, and awarded them the lands claimed thereunder. I am unable to agree with your conclusion.

Section 2265 of the Revised Statutes requires the claimant for unoffered land to make known his claim in writing within three months from the date of his settlement.

In the presence of an adverse claim two things are necessary to the initiation of a valid claim under the pre-emption laws, viz:

1. Priority of settlement on the land in good faith.
2. The execution and filing of a declaratory statement, either in person or by an authorized agent or attorney, subsequent to settlement and within the time prescribed by statute.

McKee and Sullivan executed their declaratory statements before settlement, and at a time when the land was in a state of reservation. Said declaratory statements were *post-dated* and placed in the hands of the clerk or receiver with the manifest design of obtaining some supposed priority or advantage over other applicants for the land. The last paragraph of your instructions to the register and receiver, of July 9, 1874, relative to the manner in which these lands should be restored to market, is as follows, viz: "You will not allow any entries of lands or recognize any pre-emption rights as attaching prior to the date of restoration." This order prohibited the local officers from allowing any filings or entries prior to the day of restoration, September 4, 1874, and their action in receiving the declaratory statements of McKee and Sullivan prior to that time, and afterward placing them of record, was contrary to the spirit and intent of your instructions, as well as to a just and proper administration of the law.

When lands are subject to disposal under the laws of the United States, it is the duty of the local land officers to receive all proper applications therefor, and place them on record; but when the lands are not subject to disposal, the plain duty of these officers is to reject such applications. These officers have no authority to receive applications to file or enter lands which are in a state of reservation, and hold them until the reservation is removed, and then place them on record, in order to advance the interests, or accommodate any individual; such an act of favoritism is contrary to a proper administration of the public-land system, and cannot receive the sanction of this department; and the filings of McKee and Sullivan must be canceled. The testimony taken at the hearings held in March, 1875, and December, 1876, shows that Ryan has not complied with the requirements of the pre-emption laws, and your decision holding his filing for cancellation is affirmed.

Finnegan made default at the hearing held in March, 1875, and as it does not appear that he ever made any settlement on the land claimed by him, his filing will be canceled. O'Mara and Walther have shown a substantial compliance with the law.

Walther will be allowed to enter the N. W. $\frac{1}{4}$ section 13, 2 S., 11 E., on showing a full compliance with the requirements of the pre-emption laws to the date of entry, and the S. W. $\frac{1}{4}$ section 13, 2 S., 11 E., is awarded to O'Mara, subject to a full compliance with the homestead law.

Your decisions are modified accordingly, and the papers transmitted with your letters of January 30, 1877, and December 10, 1877, are herewith returned.

Very respectfully,

C. SCHURZ, *Secretary*.

COMMISSIONER OF GENERAL LAND OFFICE.

WHITE *vs.* UNIVERSITY OF CALIFORNIA.

In the selection of land in California in lieu of school sections claimed to have been lost in place the State locating agent, State surveyor general and local land officers, must certify that their respective records do not show that a former selection has been made by the State for the same land claimed to have been lost, prior to July 23, 1866, and that to the best of their knowledge and belief no such selection has been made.

The warrants issued under the State law of May 3, 1852, for 320 acres each, of the 500,000 acre grant under the Congressional act of April 4, 1841, disposed of that portion of the said government grant covered thereby. The provisions of the State law of April 23, 1858, regulating the disposal of the *unsold* portions of the said 500,000 acre grant, are not applicable to parties who have purchased said warrants.

DEPARTMENT OF THE INTERIOR,
Washington, January 10, 1878.

SIR: I have considered the case of The State of California, *ex rel.* John C. White, applicant under the first section of the act of July 23, 1866, *vs.* the University of California, on appeal from your decision of May 7, 1877.

The land involved is the N. W. $\frac{1}{4}$ of section 6, township 2 north, range 6 east, and the E. $\frac{1}{2}$ of N. W. $\frac{1}{4}$ and N. E. $\frac{1}{4}$ of section 32, township 3 north, range 6 east, Mt. D. M., Stockton, Cal.

The N. W. $\frac{1}{4}$ of section 6 and the N. $\frac{1}{2}$ of section 32 were selected by the State June 26, 1862, in lieu of lands in sections 16 and 36 claimed to have been lost in place.

The University of California, on February 27, 1874, applied to locate, under the act of July 2, 1862, the N. W. $\frac{1}{4}$ of section 6, and E. $\frac{1}{2}$ of N. W. $\frac{1}{4}$ of section 32. This application was rejected on account of the adverse claim of White.

In 1869 there was approved to the State other land, in lieu of that claimed to have been lost in place, for which the tracts above described were selected in 1862. Thus, should the selection under consideration be approved, it is asserted that the grant to

the State would be increased, in violation of the provisions of section 1 of the act of July 23, 1866: "That the State of California shall not receive, under this act, a greater quantity of land for school or improvement purposes than she is entitled to by law."

It cannot be denied that there is force in this objection, and upon this point your office ruled that the proviso applies to the grant in the aggregate, and not to indemnity that may be taken for any specific tract. Should it be held that by a subsequent selection the State had barred the right of confirmation of the selection made prior to 1866 the purchaser from the State would be the sufferer, and the very purpose of the act of 1866, viz, to quiet title, and to protect the rights of purchasers in good faith, would be defeated. The State cannot thus be permitted to defeat the rights of her grantees.

Great care, however, should be exercised by your office in the adjustment of the grant of the sixteenth and thirty-sixth sections, to prevent its being enlarged, under the provisions of the first section of the act above cited. And as preliminary to this step, you will in the case of each selection made in the future, of lands in lieu of those claimed to have been lost in place, require the State locating agent, the State surveyor general, and the local land officers, to certify that the records of their respective offices do not show that a former selection has been made by the State, for the same land, claimed to have been lost, prior to July 23, 1866, and that to the best of their knowledge and belief no such selection has been made. Should you ascertain from any source that a former selection has been made, you will hold the subsequent one in abeyance until an adjudication of the question of confirmation, and should the prior selection be confirmed, the latter must be canceled. You will also pursue a like course with all the selections now on file in your office, not approved to the State by the head of this department.

It appears that White has located a school warrant for 320 acres of land, and it is contended that he has exhausted his right, and is barred from obtaining title to an additional 320 acres under the act of the legislature of California approved April 23, 1858.

The act of the legislature of California approved May 3, 1852, authorized the issuing of warrants for not more than 320 acres each, of the 500,000 acre grant made to the State by the act of Congress approved April 4, 1841. They were to be sold for \$2 per acre, and the purchaser was authorized, in behalf of the State, to locate them upon any land of the United States subject to location. This was done by White. The warrants thus issued and sold by the State disposed of that portion of the 500,000 acres covered thereby. (*Bludworth vs. Lake*, 33 California, 255; *Toland vs. Mondell*, 38 California, 30.) If this be so, the provisions of the act of the legislature of California, approved April 23, 1858, regulating the disposal of the *unsold* portions of the 500,000 acre grant, are not applicable to parties who have purchased said warrants. This view is confirmed by the twelfth section of said act, which repeals the act of May 3, 1852, providing, however, "that all school land warrants now in circulation shall be received for school lands, and may be located as now provided by law." For these reasons I am of the opinion that the case of *Chapman vs. Buckman*, 39, California, 674, cited by counsel in support of their position, is not applicable, as the lands therein involved were located under the provision of the act of April 23, 1858, regulating the disposal of the unsold portion of the 500,000 acre grant.

The question of the good faith on the part of White, who claims as a purchaser under the first section of the act of July 23, 1866, must now be considered. Said section provides that where the State of California has made selection of any portion of the public domain, in part satisfaction of any grant, and has disposed of the same to purchasers in good faith under her laws, said selection shall be confirmed.

The words "disposed of the same to purchasers in good faith under her laws," used in this connection, must be interpreted to mean sales or locations made according to the conditions of the State laws under which they purport to have been made, and which have been made in such a manner as would have passed title had it then been in the State. White appears to have made application in 1862, in due form, under the laws of the State, for the N. $\frac{1}{2}$ of section 32, township 3 north, range 6 east, and made final payment for the same in 1868. I see no reason why he should not be recognized as a purchaser in good faith for said tract, and the N. E. $\frac{1}{4}$ and E. $\frac{1}{4}$ of N. W. $\frac{1}{4}$ of said section 32 be approved to the State. The W. $\frac{1}{2}$ of N. W. $\frac{1}{4}$ of said section 32 having been approved to the State under the swamp grant in 1866, no further action in reference to the same will be taken by this department.

The location of the N. W. $\frac{1}{4}$ of section 6, township 2 north; range 6 east, was made in behalf of William B. Hood, who has assigned his interest to White.

The fourth section of the act of April 23, 1858, provides that "the agent shall not locate more than 320 acres either directly or indirectly for any one person."

It is asserted that the location of Hood was made in the interest of White, to enable him to obtain more than 320 acres of land.

There can be no doubt, in my opinion, as to the truth of this allegation. In the record of the case of *White vs. Lyons*, in the State court, introduced in evidence at the

trial before the local officers, it appears that White testifies as follows: "I spoke to Messrs. Swinney, Russell, and Hood, and they agreed to my request to make these locations in their own names for my benefit." The location of Hood was for the tract in dispute, viz, the N. W. $\frac{1}{4}$ of section 6. The fact that the location by Hood was in the interest of White, and consequently not in good faith, is established by the testimony of White himself, without taking into consideration the evidence of Lyons, submitted at the trial before the local officers, to the same effect. I am of the opinion, however, that the evidence of Lyons, in this case, should be received, and that he should be regarded as an agent to locate lands rather than an attorney, whose evidence as to the transactions between his client and himself should be rejected. I cannot concur with you in the view that the judgment of the State court in the case of White *vs.* Lyons is conclusive in this case; the validity of the location of the lands by the State was not the question at issue before that court, neither did it pass upon that question.

Hood cannot be considered a purchaser in good faith from the State, and the selection of the N. W. $\frac{1}{4}$ of section 6, township 2 north, range 6 east, Mt. D. M., was not confirmed by the act of July 23, 1866, and the claim of the State to the same must therefore be rejected.

There appears to be no valid adverse claim to the tract, and the same is subject to selection by the University of California.

The papers transmitted with your letter of August 21, 1877, are herewith returned.

Very respectfully,

C. SCHURZ,
Secretary.

The COMMISSIONER OF THE GENERAL LAND OFFICE.

WALLACE *vs.* STATE OF CALIFORNIA.

Where a question is raised as to the correctness of the return of the surveyor general as to the character of certain land, a hearing should be ordered to ascertain the facts in the case.

DEPARTMENT OF THE INTERIOR,
Washington, December 28, 1877.

SIR: I have considered the case of Matthias T. Wallace *vs.* The State of California, involving the N. W. $\frac{1}{4}$ of section 23, township 3 north, range 7 east, M. D. M., Stockton, Cal., on appeal from your decision of May 9, 1877.

After a full recital of the facts, you held that the State could not be allowed a hearing before the surveyor general, for the purpose of submitting evidence upon the question of the alleged swampy character of the land, and allowed Wallace to file for the same.

This decision was based upon the opinion of the Assistant Attorney General, dated December 5, 1871, in which he says, after quoting the last clause of the fourth section of the act of July 23, 1866: "This privilege given to the State I understand to be limited to surveys made in those townships where the geodetic system had been adopted and to those where there had been no United States survey prior to the passage of the act."

You state in your decision, "A survey of this land having been made by the United States prior to the act of July 23, 1866, the *converse* of this decision must apply, and the right of the State is concluded thereby, and a hearing will not be allowed."

The third clause of the fourth section of the act of July 23, 1866, is as follows: "In case such State surveys are found not to be in accordance with the system of the United States surveys and in such other townships as no survey has been made by the United States, the Commissioner shall direct the surveyor general to make segregation surveys, upon application to said surveyor general by the governor of said State within one year of said application, of all the swamp and overflowed land in such townships, and to report the same to the General Land Office, representing and describing what land was swamp and overflowed, under the grant, according to the best evidence he can obtain."

The fourth clause of said fourth section provides that "if the authorities of said State shall claim as swamp and overflowed any land not represented as such upon the map or in the returns of the surveyors, the character of such land at the date of the grant, September 28, 1850, and the right to the same, shall be determined by testimony, to be taken before the surveyor general, who shall decide the same subject to the approval of the Commissioner of the General Land Office."

In my opinion, it follows from a correct interpretation of these provisions that, in a township surveyed under the geodetic system or by the State, and where there had been no United States survey, if, subsequent to the passage of the act of 1866, the surveyor general constructed his plat as directed, and on said plat neglected to return as swamp land claimed as such by the State, a hearing to ascertain the facts should be ordered before the appointed tribunal.

The first clause of the said fourth section of the act of 1866 provides, that in cases where the townships had been surveyed by the United States and the plats approved, the lands returned as swamp and overflowed were to be certified to the State without further action, hence no hearing as to the character of the land is necessary.

In the case under consideration, however, the township was surveyed by the United States prior to July 23, 1866, and the land is returned by the surveyor general as subject to "periodical overflow," and not as "swamp and overflowed," as provided in the statute; hence, it is not subject to certification to the State by virtue of the return of the surveyor general. The State, however, claims the land as swamp. A question is thus raised as to the correctness of the return of the officer and a hearing is requested, that the facts in the case may be ascertained. I find nothing in either the act of September 28, 1850, or July 23, 1866, which debars the State of this right; on the contrary, it is expressly guaranteed in the fourth clause of the fourth section above quoted.

Your decision denying a hearing is overruled, and the same should be ordered.

The surveyor general is created by law the tribunal before whom evidence as to the character of the land should be submitted.

The evidence in the case should be transmitted to that officer. The parties should be duly notified, and for the purpose of avoiding delay and expense, the same evidence may be received, should both claimants agree thereto, and upon its receipt from the surveyor general, with his opinion thereon, you should determine the case upon its merits.

Should it be ascertained that the tract is not swampy in character, Wallace should be allowed to file for the same; but should it be found that the land was of the character granted by the act of 1850, it should be approved to the State as such.

The papers transmitted with your letter of September 4, 1877, are herewith returned.

Very respectfully,

C. SCHURZ,
Secretary.

The COMMISSIONER OF THE GENERAL LAND-OFFICE.

DALLAS vs. WHITE.

An alien may purchase land of the government and hold it until office found, under the act of July 23, 1866, unless expressly prohibited.

By the treaty of Gaudaloupe-Hidalgo, the Government of the United States is bound to protect Mexican citizens residing within the United States in the full enjoyment of their property. By property is meant, as applied to lands, all titles, perfect and imperfect, and rights thereto, which are executory as well as executed.

It is sufficient under said act if the lands claimed are used for the purposes for which they are best adapted, without a fence or inclosure thereof.

DEPARTMENT OF THE INTERIOR,
Washington, July 25, 1878.

SIR: I have considered the case of Alexander Grant Dallas vs. Carl E. White *et al.*, pre-emption claimants, involving the right of Mr. Dallas to purchase, under the seventh section of the act of July 23, 1866, certain tracts in township 16 N., 16 W., and 16 N., 17 W., M. D. M., San Francisco, Cal., on appeal from your decision of April 10, 1877, by the pre-emption claimants.

The record shows that Dallas, by his attorney, A. W. McPherson, filed declaratory statement 63, July 25, 1873, under said act, for the * * * (description of tracts).

The land in contest is claimed to be part of a Mexican grant alleged to have been made by Governor Manuel Micheltorena to William A. Richardson, on or about October 30, 1844, of a tract of land "north of the Russian establishments in the direction of Cape Mendocino," and of which a survey was subsequently made in accordance with the data on file in the office of the United States Surveyor General, as follows, to wit: "Which tract of land is situate in the present county of Mendocino, and is described as follows, viz: Bounded on the west by the ocean, on the north by the Rio Grande, on the south by a parallel 38° 48' north latitude, on the east by a line commencing from a point two leagues east of the point where said southern boundary line crosses high-water mark, and thence running to the southern shore of said Rio Grande, two leagues east from said ocean, said tract comprising twenty square leagues."

In 1855 the board of California land commissioners confirmed the grant "in the county of Mendocino, embracing twenty square leagues, to be hereafter located according to law, on the borders of the Pacific and Rio Grande between latitudes 30° 18' and 38° 48' north."

In June, 1866, the United States district court for the northern district of California reversed the decree of the land commissioners and rejected the claim of Richardson. He appealed to the Supreme Court of the United States, but failing to enter his appeal, it was finally docketed and dismissed by that court November 22, 1872. In his decision of March 9, 1875, in the case of Taylor *et al.* vs. The State of California, Hon. B. R. Cowen, Acting Secretary of this department, held *that* to be the date of the rejection of the grant.

The land was surveyed in October and November and the township plats were filed in the local office in November, 1867. They were withdrawn by the surveyor general December 2, 1867, and were refiled January 24, 1873.

The seventh section of the act of July 23, 1866, provides "that where persons in good faith and for a valuable consideration have purchased lands of Mexican grantees or assigns, which grants have subsequently been rejected, or where the lands so purchased have been excluded from the final survey of any Mexican grant, and have used, improved, and continued in the actual possession of the same according to the lines of their original purchase, and where no adverse right or title (except of the United States) exists, such purchaser may purchase the same after having such land surveyed under existing laws at the minimum price established by law, upon first making proof of the facts required in this section, under regulations to be provided by the Commissioner of the General Land Office; * * * provided that the provisions of this section shall not be applicable to the city and county of San Francisco; provided that the right to purchase herein given shall not extend to lands containing mines of gold, silver, copper, or cinnabar."

Section 8 of the act provides "that nothing in this act shall be construed so as in any manner to interfere with the right of *bona fide* pre-emption claimants."

The statute, therefore, imposes upon Dallas, before his right of purchase can be admitted, proof that he purchased the land in question in good faith, for a valuable consideration, from the Mexican grantee or his assigns; that the grant was subsequently rejected; that he has used, improved, and continued in the actual possession of the lands claimed; that no valid adverse right or title exists (except in the United States); that the lands do not contain the mines named, and are not within the city and county of San Francisco.

Counsel for the "settlers" claim that Dallas, though resident in California at the date of his purchase, was not a citizen of the United States, nor had declared his intention to become such, but was a subject of Great Britain (which is admitted), and that he is not, therefore, authorized to make said purchase under said seventh section, the provisions of which, it is alleged, apply only to citizens.

The law seems well settled in respect to the right of an alien to purchase land in the United States. By the common law, he may take land by purchase but not by descent (3 Peters, 126; 6, 162; 4 Wheaton, 453; 3, 594; 11, 332), and his title is not divested until office found, or by some act of the State to acquire possession (7 Cranch, 603-621; 20 How., 8; 2 Cal., 558; 5, 373); and until then he has complete dominion over the estate (13 Pick., 523; 18 Cal., 217; 13 Wend., 546).

The constitution of the State of California, wherein the lands in question are located, provides that "foreigners who are or who may hereafter become *bona fide residents* of this State shall enjoy the same rights in respect to the possession, enjoyment, and inheritance of property as native-born citizens." An act of the legislature of that State (April 19, 1856) provided that "aliens shall hereafter inherit and hold by inheritance real and personal estate in as full a manner as though they were native-born citizens of this or the United States."

In the case of *People vs. Rogers* (13 Cal., 160), the supreme court of that State held that this statute was not inconsistent with the constitutional enactments, saying, "the alien is secured by the constitution in this one privilege, but may be secured by the legislature in as many more as it choose to give, provided there is no conflict with any constitutional restriction upon its power, of which this is not one." Following this decision, the civil code of the State, adopted March 21, 1872, provided that "any person, whether citizen or alien, may take and hold property, real or personal, in this State."

This broad provision would seem to make the property rights of aliens and citizens in that State co-extensive.

I am of opinion, also, that under the laws of the United States an alien may purchase land of the government, and hold it until office found, unless expressly prohibited. The pre-emption, homestead, and mining laws, limit this right to citizens or those who have declared their intention to become such, but the act of July 23, 1866, makes no limitation; it authorizes "persons" without other description, to make the purchase named therein, and I do not think it competent to import words into the act for the purpose of giving it a more restricted meaning than the words used by the law-makers evidently signify; and that is that *whoever* complies with the conditions of the act shall be entitled to its benefits. To confine it to citizens, would, I think, narrow its provisions beyond its intent. It seems rather in *pari materia*, with the treaty of Guadalupe Hidalgo with Mexico, ratified March 10, 1848, and with the act of March 3, 1851, for the settlement of private land claims in California, growing out of that treaty, neither of which restricted property rights to citizens of the United States. I am of the opinion, therefore, that Dallas, if otherwise qualified, may make the purchase, and his right so to do accords with the practice of your office, which permits an alien to purchase public land at private entry, pursuant to the opinion of Mr. Attorney-General Cushing (8 Op., 351).

Objection is also made that, as the alleged Mexican grant to Richardson has been rejected by the United States district court, because founded upon fraud and forgery, it was a mere claim and not a *grant* within the meaning of said seventh section, and, therefore, there was no grantee from whom or from whose assigns Dallas could purchase.

By the treaty with Mexico the government of the United States pledged itself that Mexican subjects then established in territories previously belonging to Mexico should be free to retain the property they then possessed, or to dispose of the same as they saw fit; that property of any kind should be inviolably respected, and that Mexican subjects who in said territories should not preserve the character of Mexican citizens, should be maintained and protected in the free enjoyment of their liberty and property, and that the government of the United States should pass and enforce such laws as the nature of the subject should require.

By the term "property," as used in the treaty, and as applied to lands, all titles are embraced, perfect or imperfect, and rights thereto, which are executory as well as executed, and in this respect the new government took the place of that which had passed away (*Hornsby vs. United States*, 10 Wall., 242).

The "act to ascertain and settle private land claims in California," of March 3, 1851, provided only for confirming and patenting *valid* claims, and making invalid ones part of the public domain. It was found that Mexicans in possession of grants alleged to be valid, had oftentimes sold them to persons in good faith, who supposed them to be valid and the title perfect, but which, on investigation, proved otherwise. To relieve such persons Congress passed the act of July 23, 1866. This has been repeatedly held to be a remedial act, and is therefore to be so construed as to accomplish the end in view, viz, that of settling and quieting land titles in California. It does not grant to purchasers the land purchased of Mexican grantees, or their assigns, but reaches the equities of the case, and gives them a preference right to purchase, upon the terms on which other public lands are sold, and thus affords specific relief to those who found themselves with a defective instead of a valid title.

The proofs show that May 31, 1852, William A. Richardson made a power of attorney in writing to William Parsons Avis, duly signed, sealed, acknowledged, and recorded, authorizing him to "sell, barter, exchange, mortgage, lease, convey, and dispose of" "any lands or other real estate to which I am or may be entitled in the said State of California," "to any person or persons for such price and on such terms as he may deem proper, and good and sufficient deeds or other conveyances or assurances, for me and in my name to give." June 5, 1852, Maria Antonia Richardson, wife of the said William A., made her power of attorney to the said Avis, conferring upon him substantially the same authority.

June 2, 1853, Richardson and his wife, by the said Avis, their attorney in fact, executed to Sherman Peck, of San Francisco, Cal., for the consideration of \$25,000, a deed of "all that certain tract, piece, or parcel of land * * * in the county of Mendocino, and being a part of the Albion Rancho, owned" by Richardson, as described in the sectional map from a sworn survey, amounting to 10,520 acres. This deed appears to have been duly signed, sealed, acknowledged, and recorded.

A certified copy of a deed dated February 14, 1854, is also produced from the records, purporting to have been executed by Sherman Peck to Donald Davidson and Alexander W. McPherson, conveying to them the lands above named, for the consideration of \$5, with the name of Geo. T. Upham written thereon as a subscribing witness to the signature of Peck, but the deed is neither signed, sealed, nor acknowledged by Peck. The certificate of a notary public attached, shows that upon the same day said Upham, known to said notary, appeared before him, and, being sworn, said that he knew said Peck who executed said conveyance, that he was present and saw Peck sign, seal, and deliver the same, as and for his act and deed, and that he acknowledged the execution thereof, whereupon he (Upham) became the subscribing witness thereto. Under the laws of the State of California, then in force, this mode of proving the execution of a conveyance of real estate was sufficient to entitle the deed to record.

A. W. McPherson, the agent for Dallas, having charge of his papers and business for many years, swears that he had in his possession the original deed from Peck to Davidson and himself for a long while, that it bore the signature of Peck, and that he delivered it to the attorney of Dallas in San Francisco.

Hall McAllister swears that he was the attorney of Dallas in San Francisco, that he received two original deeds relative to the Albion Rancho, one from Richardson to Peck and the other from Peck to Davidson and McPherson, conveying over 10,000 acres of said rancho; that he believed the paper on file to be a copy of the latter deed; that he retained possession of said deeds for several years; that it purported to be signed by Peck, and contained the notary's original certificate of acknowledgment thereof, but that he was not acquainted with the signature of Peck, and could not swear to the same; that he examined said deed several times with respect to the chain of title to said rancho and found it complete, so far as said 10,000 acres were con-

cerned, and that he could not be mistaken as to the fact that said deed contained the proper signature and acknowledgment; that he has made diligent search for the same and cannot find it, but he believes it to have been lost in moving his office and papers.

Under the testimony, therefore, of McPherson and McAllister, the notarial certificate of the proof of Peck's signature, by Upham, and the legal presumption of the regularity of its execution, in order to its record, I am of opinion that said deed was signed by Peck; that the copy thereof from the record is proper evidence, and that the omission therefrom of Peck's signature was the clerical mistake of the recorder in recording the same.

The loss of a deed, after reasonable diligence to obtain the original, authorizes the admission of secondary evidence and parol proof of its contents. (24 How., 179, *Gregg et al. vs. Forsyth*; 12 Peters, 1, *United States vs. Lamb*; 3 Mass., 85, *Commonwealth vs. Snell*; 7 Peters, 99, *Minor vs. Tillotson*.)

April 19, 1854, Davidson and McPherson made a declaration of trust, duly signed, sealed, acknowledged, and recorded, wherein they declare that the lands named in the deed from Peck to themselves were held for and on account of and in trust for Alexander Grant Dallas, and were to be conveyed to him thereafter upon request, they, in the mean time, receiving the rents and profits thereof for his use; and March 15, 1869, for the consideration of one dollar, they conveyed to him the same lands.

These conveyances show a purchase by Dallas of the land in question from the assignee of a Mexican grantee, within the meaning of said seventh section, for a valuable consideration, and, in connection with the facts hereinafter set forth, show that such purchase was made in good faith prior to the rejection of said grant in 1872.

Has he used, improved, and continued in the actual possession of the land claimed, according to the lines of his purchase?

The testimony is very voluminous (about seven thousand pages), and I shall consider it only in general. It shows that the portion of the Albion grant here in question constituted an extensive and valuable tract of redwood timber, a small part only being agricultural land, and that to subdue this forest and utilize the timber was Dallas's object in its purchase. Directly thereafter, McPherson, his agent, chartered a vessel at San Francisco, which he freighted with machinery, provisions, men, and materials necessary to the business, and sailed to the Albion River. He entered upon and took possession of the lands then occupied solely by one Phillips, Richardson's agent, who pointed out to him the land purchased, and selected a mill site on lot 5, section 28, township 16, range 17 west. He erected a mill, which he afterward enlarged till it had a capacity for sawing 20,000 to 25,000 feet of lumber per day, and cost "from first to last" from \$35,000 to \$60,000, built wharves, houses, and the necessary appurtenances to such an establishment, and commenced cutting logs wherever on the land he saw fit which was known as and called "the Dallas purchase." He continued thus to operate the business for about a year, when Dallas revoked his agency and leased the mill and lands to other persons. In December, 1857, McPherson again became Dallas's agent, and has so continued to the present time, carrying on the same business. The original mill having been burned, a new one was erected in 1867 (or 1868) at a cost of \$40,000, and is now standing. Piers and booms (at a cost of \$10,000) were built, roads were constructed wherever the business required, and from seventy-five to one hundred men were on his pay roll. Camps were established on various parts of the land, wherever it best suited his convenience, and changed as necessity required, and the open land along the coast (prior to settler's inclosures) was used for grazing cattle belonging to the mill or its employés. Upon July 23, 1836, the estimated value of Dallas's improvements amounted to \$75,000.

I think it evident from the whole testimony, that Dallas purchased the land for lumbering purposes, and that all his improvements thereon were intended for and adapted to that end. The felling of trees wherever he or his agent pleased, and the nature of his possession and use of the land, manifests this one object and no other. The counsel for contestants, however, claim that all this fails to show the "actual possession" required by the seventh section of the act.

Dallas purchased by a sectionized plat of survey. The lines were ascertainable by the map referred to in the deed from Richardson to Peck, and were substantially well known to all persons in the vicinity, and his deed was of record, giving notice of the extent of his claim and his title. Notwithstanding some timber was cut outside of the lines of his purchase (which was unauthorized), yet I think actual possession of the land inside his lines was held and maintained by its use for the purpose for which it was intended and for which it was adapted. Such occupation depends upon the character and quality of the land and the object of its possession. Actual possession of arable land may consist in its cultivation, while that of timber land may consist in felling trees and general lumbering operations. In *Hyatt vs. Smith* my predecessor decided, December 19, 1872, that "when land is of a character similar to that in controversy, suited only to grazing cattle, I think the requirements of the act (July 23, 1856,) are complied with when the claimant in good faith used it for that purpose,

and improved it according to the necessities of his occupation. * * * Nor is fencing or inclosure of the land in every instance, in my opinion, necessary in order to perfect a claim under the act. Smith appears to have occupied the land in controversy for the purposes for which it was best adapted, in the usual and ordinary way. This is, in my opinion, a sufficient compliance with the requirements of the act of 1866."

Actual possession means a subjection to the will and dominion of the claimants, and is usually evidenced by occupation, by a substantial inclosure, by cultivation, or by appropriate use, according to the particular locality and quality of the property. (16 Cal., 574, *Coryell vs. Cain*.)

Nor is it necessary that there should be any fence or inclosure of the land. (10 Peters, 412, *Ellicott vs. Pearl*; 42 Cal., 157, *Gray vs. Collins*; 44 Cal., 252, *McCreary vs. Everding*; 2 Dana's Kent, 275, *Moss vs. Scott*.)

If a party with title enters upon lands his possession is coextensive with his title if there be no adverse possession. (4 Mass., 326, *Prescott vs. Nevens*; 6 Peters, 61, *Miller's heirs vs. McIntyre*; 6 Peters, 125, *Sicard vs. Davis*.)

Applying these principles to the facts elicited by the testimony, I am of opinion that by his continuous use and possession of the land in question since 1854, manifested by his cutting timber thereon whenever and wherever he chose (with but a single objection), and by his acts of control and authority over it, Dallas has extended his rights over the whole tract, and maintained the actual possession required by the act, and is authorized to make the purchase, unless there are valid adverse rights or titles thereto, except of the United States, and I award to him all the tracts he claims, which were in his use and occupation November 22, 1872 (the date of the rejection of the grant), and were not in the adverse possession of others.

[Then follows a discussion of the rights of the respective pre-emption claimants.]
Your decision of April 10, 1877, is modified as hereinbefore set forth. * * *

Very respectfully,

C. SCHURZ, *Secretary*.

The COMMISSIONER OF THE GENERAL LAND OFFICE.

HEIRS OF T. WALLACE MORE.

Where a Mexican grant is of quantity within larger exterior boundaries, and the claimant has selected and had patented to him the quantity granted and confirmed, he will *not* be allowed to purchase, under the seventh section of the act of July 23, 1866, any of the lands not selected within the exterior boundaries of the grant.

Where grants were made not of quantity but by specific boundaries, and the claimant has occupied lands (through some mistake or misapprehension) not included within such specific boundaries, he may purchase under the seventh section of said act the lands so occupied, which were excluded from the grant on final survey, if no adverse claim thereto exists except of the United States.

DEPARTMENT OF THE INTERIOR,
Washington, July 25, 1878.

SIR: I have considered the application of the heirs of T. Wallace More to purchase, under section 7 of an act of Congress, approved July 23, 1866, entitled "An act to quiet land titles in California," certain lands in township 3 N., 18 W.; 4 N., 18 W.; 3 N., 19 W.; 4 N., 19 W.; 3 N., 20 W.; 4 N., 20 W.; 3 N., 21 W.; and 4 N., 21 W., S. B. M., Los Angeles land district, California, on appeal from your decision of July 18, 1877.

The facts of this case are substantially as follows, viz: On May 23, 1829, Carlos Antonio Carrillo petitioned the Mexican Government for a grant of the "place called Sespe," describing the tract applied for as a valley extending from the arroyo of "Piruc" to that of "Mupu," an estimated distance of about four and one-half leagues, the width of the valley being about three-quarters of a league in the clear. Petitioner also stated that a large portion of the valley was an *arenal* (the wide sandy bed of the Santa Clara River which flowed through the valley), and worthless; the only land of value being that lying between the edges of said *arenal* and the hills on each side.

After the usual proceedings had been taken on the petition by the proper authorities, a grant was issued to the petitioner on November 29, 1833, by José Figueroa, superior political chief, &c., "for the Territory of Alta California, for the land known by the name of Sespe," "bounding with the missions of San Fernando and San Buenaventura," and limited in extent as follows:

"The land of which donation is made is of the extent of *two square leagues* (dos sitios de granada mayor), a little more or less, as shown by the map (diseno) in the expediente. The judge who may give possession will cause the same to be measured in accordance with the ordinances for the marking boundaries, the surplus that may result to remain for the use of the nation."

This grant was approved by the Territorial deputation on May 17, 1834, and juridical possession thereof given to Carrillo, by the proper officer, on December 16, 1842. It appears that, in making the survey, the officer measured but two lines, one for the length of the tract and one for the width. The line for the length was measured from

the arroyo "Mupu" to that of "Pirue," something over five and one-half leagues; and the one for the width of the valley, something over one league, the surveyor estimating the area of the tract at between five and six square leagues.

This grant was presented by Carrillo to the Board of United States Land Commissioners, created by act of Congress, approved March 3, 1851 (9 Stats., p. 631), to ascertain and settle private land claims in California, and was confirmed by said board on April 18, 1853.

The decree of confirmation is as follows: "It is decreed that the said claim be confirmed to the claimants, to the extent and quantity of *six square leagues* or *sitios de granada mayor*, being the same land described in the grant and expediente referred to therein, and of which possession has been had and enjoyed under the same, provided that the said quantity of land granted and now here confirmed be contained within the boundaries called for in said grant and map to which the grant refers, and if there be less than the above-named quantity within the said boundaries, then we confirm to the claimants that less quantity."

Carrillo died (the exact date is not known) and his estate was administered upon in the probate court of Santa Barbara County, and a sale of the real estate was ordered for a distribution of the proceeds between his heirs at law. The Sespe grant was accordingly sold at administrator's sale; 13-14 on November 8, 1854, and 1-14 on May 14, 1855. Thomas W. More became the purchaser thereof for the sum of \$18,500. These sales were subsequently confirmed by the probate court, and deeds were regularly executed by the administrators and delivered to Mr. More.

In the published notices which preceded said sales, the Sespe grant was described as containing about six square leagues, but the conveyances by the administrators to More do not state the amount of land conveyed, the description of the property being confined to the name of rancho and the county in which it is located.

A petition for review of the decision of the board of land commissioners was filed in the United States district court, by the United States district attorney, on December 29, 1854, and a summons was issued to the heirs of Carrillo to appear and defend said action on February 1, 1855, and service was perfected by the marshal on March 1, 1855. On October 18, 1855, the name of Thomas W. More was substituted by order of the court as the party appellee in place of the heirs of Carlos Antonio Carrillo, it being shown that he had become the owner of the grant after the decree was rendered by the Board of Land Commissioners.

On February 5, 1856, A. F. Hinchman, attorney for More, filed the following stipulation in the United States district court, viz: "It is admitted by the claimants in the above-entitled cause that the grant of land claimed in this case as originally delivered to Carlos Antonio Carrillo *was for two square leagues of land*, the quantity granted as shown in the copy of the expediente as filed in this case, and not for *six square leagues*."

And it is further admitted by said claimants, that the said original grant was altered by rasure from *two* to *six* square leagues *after the time of its execution and delivery to said Carlos Antonio Carrillo without the knowledge or consent of the governor or other officers of the late Mexican Government in California.*"

More testified that this stipulation was filed without his knowledge or consent, and that he never believed that the grant was fraudulently changed. The original records of the Mexican Government, however, show conclusively that it was so altered, and More is now estopped from denying the act of his attorney.

The reasons why this stipulation was filed are explained in a report made by Surveyor-General Day to your predecessor, Mr. Commissioner Wilson, dated May 22, 1869, wherein he says, "I have conversed with Mr. Hinchman, who now lives here. He says that Judge Ogier was fully aware of the attempted fraud, and *frowned upon any attorney who attempted to ask for a confirmation of it*. At the same time he expressed a willingness to confirm the title for two leagues. Hence the admission of Hinchman, whose client had become satisfied to take one-third of a loaf rather than get no bread. The matter was left unfinished when Judge Ogier died and it had to be reargued before Judge Haight. Colonel Whiting, then district attorney, argued the case for the United States, and he tells me that the facts were fully developed before Judge Haight, whose opinion coincided with that of Judge Ogier, and a decree was rendered for two leagues instead of the six confirmed by the land commissioners."

"On examining the original grant on file in this office, I find the word '*seis*' accompanied by signs of some kind of alteration, whether by mechanical erasure or by chemical process does not distinctly appear. * * * The handwriting of the word '*seis*' does not agree with that of the rest of the document. The original barrador, or office copy of the grant kept by the governor's secretary, has the word '*dos*' unaltered. So has also the old copy in the record book of *titulos*."

Said grant was confirmed by the United States district court on June 25, 1862, for two leagues, the decree describing the lands confirmed to be as follows, viz: "The lands hereby confirmed are those known as '*Sespe*,' situated in the county of Santa Barbara, in the southern district of California, and are of the extent of *two square leagues* within the boundaries called for in the grant and expediente referred to therein; said bound-

aries being described as follows, to wit: bounded by the missions of San Fernando and San Buenaventura: provided, that should there be less than two square leagues within said boundaries, then confirmation is hereby made of such less quantity."

On January 12, 1865, the United States Supreme Court dismissed the appeal in said case, and issued a mandate to the district court to proceed under the judgment of June 25, 1862, as under final decree.

This mandate was filed and entered on record in the district court on December 4, 1867.

The survey of this grant was made by Deputy Surveyor Hoffman in January, 1868, and a plat thereof transmitted to your office on June 17, 1868.

By this survey said grant was represented as containing 25,360.96 acres, including 5,780.29 acres of the sandy river bed or arenal.

This survey was rejected by acting Secretary Cowen on July 31, 1871, and a new survey ordered. A new plat of survey was returned by the surveyor general in December, 1871, by which the grant was located in two tracts; tract number one containing 3,086.83 acres, and tract number two containing 5,793.98 acres, making a total of 8,880.81 acres. This survey was approved by your predecessor, Mr. Commissioner Drummond, and patent issued thereon March 14, 1872.

On March 18, 1875, More applied to purchase the lands formerly within the claimed limits of said rancho, which were not included in the final survey.

You decided that the plat of the Sespe Rancho, returned by the surveyor general in 1868, correctly defined the outboundaries of the grant, and that More, his heirs or assigns, were entitled to purchase all land not included in the final survey of the grant within said boundaries, except the tract lying within the arenal or sandy river bed.

The heirs of More have appealed from so much of your decision as rejects their right to purchase the sandy lands; and the settlers whose claims are affected by your decision have appealed from so much thereof as awards to the heirs the right to purchase any of the lands in question.

The statute under which this application is made is in the following words, viz:

"That where persons in good faith and for a valuable consideration have purchased lands of Mexican grantees or assigns, which grants have subsequently been rejected, or where the lands so purchased have been excluded from the final survey of any Mexican grant, and have used, improved, and continued in the actual possession of the same as according to the lines of their original purchase, and where no valid adverse right or title (except of the United States) exists, such purchasers may purchase the same, after having such lands surveyed under existing laws, at the minimum price established by law, upon first making proofs of the facts as required in this section, under regulations to be provided by the Commissioner General Land Office, joint entries being admissible by coterminous proprietors to such an extent as will enable them to adjust their respective boundaries: *Provided*, That the provisions of this section shall not be applicable to the city and county of San Francisco: *Provided*, That the right to purchase herein given shall not extend to lands containing mines of gold, silver, copper, or cinnabar: *Provided*, That whenever it shall be made to appear by petition from the occupants of such land that injury to permanent improvements would result from running the lines of the public surveys through such permanent improvements, the Commissioner General Land Office may recognize existing lines of subdivision." (14 Stat., p. 220.)

It will be observed that the claimants entitled to purchase under this section are divided into two classes, viz:

First. Those who in good faith and for a valuable consideration have purchased lands from Mexican grantees or assigns, which grants have been subsequently rejected, and have used, improved, and continued in actual possession of the lands according to the lines of their original purchase.

Second. Where the lands purchased as above have been excluded from the final survey of any Mexican grant, and the claimant has used, improved, and continued in actual possession thereof, according to the lines of his original purchase: *Provided*, in both cases, that the lands are not mineral in character, and there was no valid adverse right or title thereto (except in the United States) at the date of the act, or in case of final rejection or determination of the limits of the grant after the passage of the act, at the date of such rejection or determination. In order to bring the case within the first class, the grant as claimed must have been rejected, not in part, but entirely. The word "rejected" is not a word of great elasticity nor of doubtful meaning, either in common parlance or in legal signification, and as used in this statute it means a legal determination adverse to the claim as presented by the tribunal before whom the claim shall be presented for final adjudication. And while it is immaterial for what reason the grant is rejected in order to give the claimant the right to purchase under said section, the quantity of the land purchased in good faith and for a valuable consideration, from the Mexican grantee, or his assigns, still that right does not exist under this provision unless the grant has been rejected. As this grant was not rejected, but on the contrary was confirmed and satisfied for the full amount granted by the Mex-

ican Government, it is obvious that the claimants do not belong to the class first mentioned, and have no right to purchase any lands described in the application on that ground.

Have they a right to purchase said lands by reason of the provision granting the right to purchase "where the lands so purchased have been excluded from the final survey of any Mexican grant, and have used, improved, and continued in actual possession of the same as according to the lines of their original purchase?"

The answer to this question must depend upon the fact whether any lands have been excluded from the final survey of said grant.

In order to determine that fact, an examination of the record, the history of this case, and the acts of the ancestor of the claimants in relation thereto is necessary.

The question of the survey and location of this grant came before my predecessor, Hon. C. Delano, in 1871, on an appeal from the decision of Mr. Commissioner Drummond, rejecting the survey thereof, made under the direction of the surveyor general of California, in 1868, which survey included 25,360.96 acres of land.

The decision of the Commissioner rejecting said survey for the reason that it embraced more than the two square leagues confirmed to More, was affirmed by departmental decision, dated July 31, 1871, based upon the opinion of Assistant Attorney-General Smith, dated July 25, 1871. (Copp's Land Laws, p. 529.) It was also held that as the grant as confirmed was a grant of quantity within larger exterior boundaries, the claimant as the assignee of a Mexican grantee had the right to select and have located the quantity confirmed to him anywhere within those exterior boundaries, in compact form if practicable, and if impracticable to locate the same in a compact form in one tract, then in separate tracts, each separate location being made as near as possible in a compact form.

In accordance with that decision, the grant as confirmed was surveyed and located within the exterior boundaries of the calls of the grant, in two separate tracts, aggregating in quantity two square leagues of land. The survey of the grant as thus made and located was approved by your predecessor, and patent issued thereon to Thomas W. More, on March 18, 1872.

The right of a claimant to select the quantity of land confirmed to him anywhere within the exterior boundaries of a Mexican grant was distinctly recognized in the departmental decision of July 31, 1871, based upon the authorities cited, and inasmuch as no objection by Mr. More appears to have been raised to the latter survey, or the acceptance of the patent issued thereon, it must be presumed that he exercised this right of selection and was satisfied therewith.

From this brief review of the facts I think it clearly appears that no lands were excluded from the final survey of this rancho. The claimant had the right of selection and did select within the exterior boundaries of the calls of the grant the full quantity of land confirmed to him, and although it is true that an area of two square leagues will not cover an area of six square leagues, still it does not follow that, because the whole quantity is not embraced within the survey, or patent of the lesser quantity, that any lands not thus selected are excluded from the final survey.

In the selection of the quantity confirmed within larger exterior boundaries, it must always happen that some lands used and occupied by the claimants are not included within the selection and survey, and to hold that the mere fact of such use and occupation for any purpose or in any manner gives the claimant the right to purchase the land so used and occupied would extend the provisions of said act so as to permit the claimant to purchase any and all lands included within the exterior boundaries of the calls of the grant claimed by him. It may be true where grants were made not of quantity, but by specific boundaries, and the claimant has occupied lands through some mistake or misapprehension, not included within such specific boundaries, that he would have the right to purchase under said section the land so used and occupied after final survey of the grant had been made, and the tracts so occupied had been excluded from such survey upon discovery and identification of the landmarks named in the calls of the grant. This right, however, does not extend to grants of quantity within larger exterior boundaries. The reason which would warrant the construction in the one case does not exist in the other.

In the act of March 3, 1851, providing a system for the settlement and final adjudication of Spanish and Mexican grants in the State of California, a reservation was created of all the lands embraced within the claimed limits of every Mexican grant, valid or invalid, although the grant, in fact, and in almost every instance, was of a quantity much less within the tract so reserved. These large tracts have been used and occupied, pending the final adjustment and satisfaction of the grant under such reservation, by claimants, since that time, in order to protect their rights, as well as to secure the benefits arising from the use of large tracts of lands.

Upon the adjustment, however, of the grant of quantity within larger exterior boundaries, I am not aware that in any instance the claimants have sought or at least been allowed by the provision of the law under which this claim is presented to purchase any portion of the lands so reserved, not embraced within the grant as finally

adjusted, and I see no reason in this case for adopting a different rule from that which has been applied and accepted as the proper construction of said act in other cases.

It is true that this act is remedial in character, and, as such, should have such liberal construction as will afford the relief intended by Congress to be granted; but while this is true, it must not be so construed, liberally or otherwise, as to embrace cases not contemplated by its provisions.

In the case of *McGarrahan vs. The Secretary* (9th Wallace, p. 298), the Supreme Court clearly indicated the opinion that the act is not to be extended to any cases except those which are brought by the proofs clearly within its provisions. In other words, that it must be extended only to cure the mischief sought to be remedied and afford relief in those cases where, without it, the parties would be remediless.

In this case, the proofs show that Mr. More occupied and used all of the land embraced within the exterior boundaries described in the calls of the grant. His purchase, however, was the interest which the heirs of Carrillo had in the "Sespe Rancho," and nothing more. The deeds did not state that six square leagues of land were conveyed thereby, but, on the contrary, they mentioned and conveyed the interest which the heirs possessed in the "San Calletano" or "Sespe Rancho," situated in the "county of Santa Barbara, in the State of California," without further designation or description of quantity or limits. That interest, as it was finally determined by the court, consisted of the grant of two square leagues of land, which, as above stated, was selected by him, and for which he received a patent in his lifetime.

To permit More, if living, or his heirs or legal representatives, now to purchase from the government, under the provisions of said section, the balance of the land embraced within the exterior boundaries of said grant, would, in my opinion, be a very dangerous precedent, and not warranted thereby.

Owing to the peculiar circumstances connected with this case, if they could be considered as bearing upon the question at issue, I should be disposed to allow the application of the heirs of More to purchase said tracts, if such application could be allowed in any case, to purchase lands within the exterior boundaries not selected, in satisfaction of the quantity granted, but in my opinion such an application cannot be allowed in any case under the provisions of the 7th section of the act of July 23, 1866.

Your decision, therefore, allowing the heirs of More to purchase any of the tracts embraced within the exterior boundaries of the "Sespe Rancho" is hereby reversed and the papers transmitted with your letter of December 5, 1877, are herewith returned.

Very respectfully,

C. SCHURZ, *Secretary.*

The COMMISSIONER GENERAL LAND OFFICE.

Homesteads.

Congress by act of the 27th May, 1878, enacted that parties who had resided upon and cultivated public lands under the provisions of the pre-emption laws, and had commuted their pre-emption filings to homestead entries, or who might thereafter do so, should be allowed the benefit of the time of such residence and cultivation in making final proof on their homestead entries, as a part of the period of residence and cultivation required by the homestead laws as a prerequisite to acquiring title. This law operates as well with regard to commutations made prior to its passage as to those made or to be made thereafter, and embodies the provisions of the previous act on the subject of March 3, 1877, which it supersedes. With the exception of this act of May 27, 1878, and the acts of June 1, 1878, and June 19, 1878, which extended the provisions of the acts for the relief of settlers whose crops were destroyed or seriously injured by grasshoppers, so as to benefit parties who suffered therefrom in 1876, there has been no additional legislation regarding homesteads on the public lands since the date of the last annual report of this office. The entries under the homestead laws during the fiscal year ending on the 30th June, 1878, reach the amount of 4,418,344.92 acres, which shows an increase of 2,240,336.75 acres over the previous year, or nearly double the quantity, and which is greater than the amount entered in any fiscal year since that ending June 30, 1872, when it was 4,671,332.14 acres.

In regard to soldiers' additional homestead claims, arising under section 2306 of the Revised Statutes of the United States, a statement was

made on page 50 of the last annual report showing the method adopted for a preliminary examination thereof in this office, before entries should be allowed. During the fiscal year ending on the 30th June, 1878, there were filed for such an examination 2,744 cases. Of these, 2,131 claims were approved and certified, and 159 are suspended for further examination, 454 having been rejected.

Reference is made to the following decisions affecting homestead rights made since the date of the last annual report of this office:

1. There is nothing in the law of March 3, 1877, authorizing the pre-emptor to change his filing to a homestead entry with credit for the time he has resided on the land claimed which requires his personal attendance at the local office. He should not be required to show his right to do so by evidence until the time for making final proof on his homestead entry.—(Secretary's letter of March 13, 1878, case of John T. Farley; circular of March 21, 1878.)

2. A party having made an additional entry under section 2306 of the Revised Statutes subsequent to the 22d June, 1874, cannot take a second additional entry, although the land embraced in his two existing entries fall below the maximum quantity of 160 acres.—(Secretary's letter of February 6, 1876, case of Joseph Alsip.)

3. County courts in Florida are courts of record, and the judges and clerks of such courts are qualified to take final proof in homestead cases under the act of March 3, 1877.—(Commissioner's letter to register and receiver, Gainesville, Fla., of January 10, 1878.)

4. Lands which are marked upon the books of the local office as covered by claims which are finally determined to be absolutely void from their inception are nevertheless withdrawn from market and cannot be again subject to private entry until duly restored to market, although such claims may be no bar to a pre-emption claim.—(Secretary's letter of November 30, 1877, case of S. N. Putnam.)

5. The father of a deceased soldier is not entitled to the benefits of section 2305 of the Revised Statutes, but only the widow or minor orphan children, if any, under section 2307.—(Commissioner's letter to the register and receiver at Concordia, Kans., of December 4, 1877, case of Samuel P. Gamble.)

6. A party who neglects to examine the character of land entered by him under the homestead laws must suffer the consequences. He cannot be allowed to make another entry if dissatisfied with the land entered.—(Commissioner's letter to register and receiver at Niobrara, Nebr., of November 28, 1877, case of John O'Dempsey Nightingale.)

7. The relinquishment of a homestead entry must be the free and voluntary act of the claimant. The wife of a homestead claimant under duress in the State penitentiary may make final proof in her husband's name. The question of her rights to the property will then be one for the courts to determine.—(Commissioner's letter to the register and receiver at Bloomington, Nebr., of November 22, 1877, case of Hanson *vs.* Geiger. Affirmed by Secretary July 18, 1878.)

8. Where a homestead claimant has failed to comply with the law in the matter of residence, he may, under some circumstances, be allowed additional time to comply therewith.—(Commissioner's letter to the register and receiver at Little Rock, Ark., of October 22, 1877, case of Adam Licklider.)

9. Judges of probate in Alabama being *ex officio* judges of the county courts, which are courts of record, the final proof in homestead cases in that State may be taken before them under the act of 3d March, 1877.—(Commissioner's letter to the register and receiver at Huntsville, Ala., of September 14, 1877.)

10. Where a patent on a homestead entry erroneously issued in the name of the homestead party instead of the name of his widow had been recorded in the county records, it was held that the legal representatives of the deceased must release all their right and title to the land before the General Land Office could issue another patent in the name of the widow.—(Commissioner's letter to the register and receiver at Lincoln, Nebr., of July 25, 1877, case of Andrew Johannisen.)

11. In the case of a homestead entry having been regularly made by an unmarried woman, who afterward married, and, having fully complied with the settlement and cultivation requirements of the homestead laws, died, leaving no heirs, it was decided that the husband might make the final proof, and that patent should issue in the name of the deceased party.—(Commissioner's letter to register and receiver at Topeka, Kans., of August 25, 1877, case of Mary Latt.)

12. Simultaneous applications having been made to file soldiers' homestead declarations under section 2309, R. S., it was ordered that both parties be allowed to file for the tract, and when either one proposed to make entry that the other should be notified and allowed an opportunity to be heard, the result reported to the General Land Office and its instructions awaited if there should be a contest, but if not, the entry applied for to be allowed.—(Commissioner's letter to the register and receiver at Hays City, Kans., of July 25, 1877, case of H. K. Farnsworth and John Wilkes.)

Timber culture.

During the last fiscal year entries of public lands have been allowed under the laws for the promotion of timber culture to the extent of 1,870,434.18 acres, which is an increase of 1,349,760.79 acres over the previous fiscal year, being more than thrice the quantity entered during that year. No patents have yet been issued for timber culture entries, the period of time for which the cultivation of the timber is to be kept up as a prerequisite to the issue of a patent not having expired in any case.

Congress at its last session passed an act, approved June 14, 1878, materially modifying the laws with regard to this class of entries, as indicated in the following circular issued by this office on the subject. It will be observed that parties who had made entries under previous laws are allowed the benefit of the changes introduced by this enactment, and may perfect their titles on showing full compliance with its provisions, or if they prefer it they may do so according to the laws under which they initiated their claims.

DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,
Washington, D. C., June 27, 1878.

TO REGISTERS AND RECEIVERS
of United States Land Offices :

GENTLEMEN : I have to call your attention to modifications of the law for the disposal of public land for purposes of timber culture, made by the act of Congress of June 14, 1878, entitled "*An act to amend an act entitled 'An act to encourage the growth of timber on the Western prairies,'*" a copy of which is hereto attached.

I.—Certain provisions of the act of March 13, 1874, are repealed by the act of June 14, 1878.

1. The act of March 13, 1874, at the close of its first section, contains the following: "*Provided, That not more than one-quarter of any section shall be thus granted, and that no person shall make more than one entry under the provisions of this act, unless fractional subdivisions of less than forty acres are entered, which, in the aggregate, shall not exceed one quarter section.*" In the act of June 14, 1878, the concluding words, "*unless fractional subdivisions of less than forty acres are entered, which, in*

the aggregate, shall not exceed one quarter section," are omitted. Hence, the rule forbidding more than one entry is made universal, and will govern in all future cases.

2. The provision of the act of March 13, 1874, requiring that the trees shall be not "more than twelve feet apart each way" is omitted from the act of June 14, 1878. The latter requires, however, that the final proof shall show "that not less than twenty-seven hundred trees were planted on each acre, and that at the time of making such proof there shall be growing at least six hundred and seventy-five living and thrifty trees to each acre."

3. The closing sentence of the second section of the act of March 13, 1874, provides that "in case of the death of a person who has complied with the provisions of this act for the period of three years, his heirs or legal representatives shall have the option to comply with the provisions of this act, and receive, at the expiration of eight years, a patent for one hundred and sixty acres, or receive, without delay, a patent for forty acres, relinquishing all claim to the remainder." This provision is not contained in the act of June 14, 1878.

4. The following section of the act of March 13, 1874, relating to homestead entries on which timber is cultivated, is omitted from the act of June 14, 1878:

"SEC. 4. That each and every person who, under the provisions of the act entitled 'An act to secure homesteads to actual settlers on the public domain,' approved May twentieth, eighteen hundred and sixty-two, or any amendment thereto, having a homestead on said public domain, who, at any time after the end of the third year of his or her residence thereon, shall, in addition to the settlement and improvements now required by law, have had under cultivation, for two years, one acre of timber, the trees thereon not being more than twelve feet apart each way, and in a good thrifty condition, for each and every sixteen acres of said homestead, shall, upon due proof of such fact by two credible witnesses, receive his or her patent for said homestead."

The rights of claimants under entries actually made according to the act of March 13, 1874, before the 14th June, 1878, when the amendatory act took effect, are not affected by the repeal of the provisions referred to. The parties interested, if they so elect, may consummate their entries according to the provisions of the act under which they were initiated. And homestead entries made before the 14th June, 1878, will be patented according to the fourth section above quoted, where the facts are such as to bring the cases within its provisions and the interested parties so desire. But entries made since that time must be adjusted according to the principles of the law as modified by the amendatory act.

II.—The principal points to be observed in proceedings thereunder may be stated as follows:

1. The privilege of entry under the act of June 14, 1878, is confined to persons who are heads of families, or over twenty-one years of age, and who are citizens of the United States, or have declared their intention to become such, according to the naturalization laws.

2. The affidavit required for initiating an entry under the act of June 14, 1878, may be made before the register or receiver of the district office for the land district embracing the desired tract, before the clerk of some court of record, or before any officer authorized to administer oaths in that district.

3. Not more than one hundred and sixty acres in any one section can be entered under this act, and no person can make more than one entry thereunder.

4. The ratio of area required to be broken, planted, &c., in all entries under the act of June 14, 1878, is *one-sixteenth* of the land embraced in the entry, except where the entered tract is less than forty acres, in which case it is one-sixteenth of that quantity. The party making an entry of a quarter section, or one hundred and sixty acres, is required to break or plow five acres covered thereby during the first year, and five acres in addition during the second year. The five acres broken or plowed during the first year he is required to cultivate, by raising a crop or otherwise, during the second year, and to plant in timber, seeds, or cuttings during the third year. The five acres broken or plowed during the second year he is required to cultivate, by raising a crop or otherwise, during the third year, and to plant in timber, seeds, or cuttings during the fourth year. The tracts embraced in entries of a less quantity than one quarter section are required to be broken or plowed, cultivated, and planted in trees, tree-seeds, or cuttings during the same periods, and to the same extent, in proportion to their total areas, as are provided for in entries of a quarter section. Provision is made in the act for an extension of time in case the trees, seeds, or cuttings planted should be destroyed by grasshoppers or by extreme and unusual drought.

5. If, at the expiration of eight years from the date of entry, or at any time within five years thereafter, the person making the entry, or, if he be dead, his heirs or legal representatives, shall prove, by two credible witnesses, the planting, cultivating, and protecting of the timber for not less than eight years, according to the provisions of the act of June 14, 1878, he, or they, will be entitled to a patent for the land embraced in the entry.

6. If, at any time after one year from the date of entry, and prior to the issue of a

patent therefor, the claimant shall fail to comply with any of the requirements of that act, then, and in that event, such entry will become liable to a contest, in the manner provided in homestead cases, and, upon due proof of such failure, the entry will be canceled, and the land become again subject to entry under the homestead laws, or by some other person under the act of June 14, 1878.

7. No land acquired under the provisions of the act of June 14, 1878, will in any event become liable to the satisfaction of any debt or debts contracted prior to the issuing of the final certificate therefor.

8. The fees for entries under the act of June 14, 1878, are ten dollars, if the tract applied for is more than eighty acres, and five dollars if it is eighty acres or less; and the commissions of registers and receivers on all entries (irrespective of area) are four dollars (two dollars to each) at the date of entry, and a like sum at the date of final proof.

9. No distinction is made, as to area or the amount of fee and commissions, between minimum and double minimum lands. A party may enter one hundred and sixty acres of either on payment of the prescribed fee and commissions.

10. The fifth section of the act approved March 3, 1857, entitled "An act in addition to an act to punish crimes against the United States, and for other purposes," is extended to all oaths, affirmations, and affidavits required or authorized by the act of June 14, 1878.

11. Parties who have already made entries under the timber-culture acts of March 3, 1873, and March 13, 1874, of which the act of June 14, 1878, is amendatory, may complete the same by compliance with the requirements of the latter act; that is, they may do so by showing, at the time of making their final proof, that they have had under cultivation, as required by the act of June 14, 1878, an amount of timber sufficient to make the number of acres required thereby, being one-fourth the number required by the former acts.

III.—The following regulations are prescribed pursuant to the fifth section of the act of June 14, 1878, viz:

1. The register and receiver will not restrict entries under this act to one quarter section only in each section, as was formerly done under the acts to which this is amendatory, but may allow entries to be made of subdivisions of different quarter sections; provided that each entry shall form a compact body, not exceeding one hundred and sixty acres, and that not more than that quantity shall be entered in any one section. Before allowing any entry applied for, they will, by a careful examination of the plat and tract books with reference to any previous entry or entries within the limits of the same section, satisfy themselves that the desired entry is admissible under this rule.

2. When they shall have satisfied themselves that the land applied for is properly subject to such entry, they will require the party to make the prescribed affidavit, and to pay the fee and that part of the commissions payable at the date of entry, and the receiver will issue his receipt therefor, in duplicate, giving the party a duplicate receipt. They will number the entry in its order, in a separate series of numbers, unless they have already a series under the acts to which this act is amendatory, in which case they will number the entry as one of that series; they will note the entry on their records, and report it in their monthly returns, sending up all the papers therein, with an abstract of the entries allowed during the month under this act. If the affidavit is made before a justice of the peace, which the act admits of, his official character, and the genuineness of his signature, must be certified under seal.

3. When a contest is instituted, as contemplated in the third section of the act of June 14, 1878, the contestant will be allowed to make application to enter the land. The register will thereupon indorse on the application the date of its presentation, and will make the application, and the contestant's affidavit setting forth the grounds of contest, the basis for further proceedings, these papers to accompany the report submitting the case to the General Land Office. Should the contest result in the cancellation of the contested entry, the contestant may then perfect his own, but no preference right will be allowed unless application is made by him at date of instituting contest.

4. The fees and commissions in this class of entries the receiver will account for in the usual manner, indicating the same as fees and commissions on timber-culture entries, which will be charged against the maximum of \$3,000 now allowed by law.

5. In all cases under this act it will be required that trees shall be cultivated which shall be of the class included in the term "*timber*," the cultivation of shrubbery and fruit trees not being sufficient.

6. The applications, affidavits, and receipts in entries allowed under the act of June 14, 1878, will be made out according to the forms hereto attached.

Very respectfully,

J. A. WILLIAMSON,
Commissioner.

[PUBLIC—No. 87.]

AN ACT to amend an act entitled "An act to encourage the growth of timber on the Western Prairies.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the act entitled "An act to amend the act entitled 'An act to encourage the growth of timber on Western Prairies,'" approved March thirteenth, eighteen hundred and seventy-four, be and the same is hereby amended so as to read as follows: That any person who is the head of a family, or who has arrived at the age of twenty-one years, and is a citizen of the United States, or who shall have filed his declaration of intention to become such, as required by the naturalization laws of the United States, who shall plant, protect, and keep in a healthy, growing condition for eight years ten acres of timber, on any quarter-section of any of the public lands of the United States, or five acres on any legal subdivision of eighty acres, or two and one-half acres on any legal subdivision of forty acres or less, shall be entitled to a patent for the whole of said quarter-section, or of such legal subdivision of eighty or forty acres, or fractional subdivision of less than forty acres, as the case may be, at the expiration of said eight years, on making proof of such fact by not less than two credible witnesses, and a full compliance of the further conditions as provided in section two: *Provided further,* That not more than one-quarter of any section shall be thus granted, and that no person shall make more than one entry under the provisions of this act.

SEC. 2. That the person applying for the benefits of this act shall, upon application to the register of the land-district in which he or she is about to make such entry, make affidavit, before the register or the receiver, or the clerk of some court of record, or officer authorized to administer oaths in the district where the land is situated; which affidavit shall be as follows, to wit: I, ———, having filed my application, number ———, for an entry under the provisions of an act entitled "An act to amend an act entitled 'An act to encourage the growth of timber on the Western Prairies'" approved ———, 187—, do solemnly swear (or affirm) that I am the head of a family (or over twenty-one years of age), and a citizen of the United States (or have declared my intention to become such); that the section of land specified in my said application is composed exclusively of prairie lands, or other lands devoid of timber; that this filing and entry is made for the cultivation of timber, and for my own exclusive use and benefit; that I have made the said application in good faith, and not for the purpose of speculation, or directly or indirectly for the use or benefit of any other person or persons whomsoever; that I intend to hold and cultivate the land, and to fully comply with the provisions of this said act; and that I have not heretofore made an entry under this act, or the acts of which this is amendatory. And upon filing said affidavit with said register and said receiver and on payment of ten dollars, if the tract applied for is more than eighty acres; and five dollars if it is eighty acres or less, he or she shall thereupon be permitted to enter the quantity of land specified; and the party making an entry of a quarter-section under the provisions of this act shall be required to break or plow five acres covered thereby the first year, five acres the second year, and to cultivate to crop or otherwise the five acres broken or plowed the first year; the third year he or she shall cultivate to crop or otherwise the five acres broken the second year, and to plant in timber, seeds, or cuttings the five acres first broken or plowed, and to cultivate and put in crop or otherwise the remaining five acres, and the fourth year to plant in timber, seeds, or cuttings the remaining five acres. All entries of less quantity than one quarter-section shall be plowed, planted, cultivated and planted to trees, tree-seeds, or cuttings, in the same manner and in the same proportion as hereinbefore provided for a quarter-section. *Provided, however,* That in case such trees, seeds, or cuttings shall be destroyed by grasshoppers, or by extreme and unusual drouth, for any year or term of years, the time for planting such trees, seeds, or cuttings shall be extended one year for every such year that they are so destroyed: *Provided further,* That the person making such entry shall, before he or she shall be entitled to such extension of time, file with the register and the receiver of the proper land-office an affidavit, corroborated by two witnesses, setting forth the destruction of such trees, and that, in consequence of such destruction, he or she is compelled to ask an extension of time, in accordance with the provisions of this act: *And provided further,* That no final certificate shall be given, or patent issued, for the land so entered until the expiration of eight years from the date of such entry; and if, at the expiration of such time, or at any time within five years thereafter, the person making such entry, or, if he or she be dead, his or her heirs or legal representatives, shall prove by two credible witnesses that he or she or they have planted, and, for not less than eight years, have cultivated and protected such quantity and character of trees as aforesaid; that not less than twenty-seven hundred trees were planted on each acre and that at the time of making such proof that there shall be then growing at least six hundred and seventy-five living and thrifty trees to each acre, they shall receive a patent for such tract of land.

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SEC. 3. That if at any time after the filing of said affidavit, and prior to the issuing of the patent for said land, the claimant shall fail to comply with any of the requirements of this act, then and in that event such land shall be subject to entry under the homestead laws, or by some other person under the provisions of this act. *Provided*, That the party making claim to said land, either as a homestead-settler, or under this act, shall give at the time of filing his application, such notice to the original claimant as shall be prescribed by the rules established by the Commissioner of the General Land Office; and the rights of the parties shall be determined as in other contested cases.

SEC. 4. That no land acquired under the provisions of this act shall, in any event, become liable to the satisfaction of any debt or debts contracted prior to the issuing of the final certificate therefor.

SEC. 5. That the Commissioner of the General Land Office is hereby required to prepare and issue such rules and regulations, consistent with this act, as shall be necessary and proper to carry its provisions into effect; and that the registers and receivers of the several land-offices shall each be entitled to receive two dollars at the time of entry, and the like sum when the claim is finally established and the final certificate issued.

SEC. 6. That the fifth section of the act entitled "An act in addition to an act to punish crimes against the United States, and for other purposes," approved March third, eighteen hundred and fifty-seven, shall extend to all oaths, affirmations, and affidavits required or authorized by this act.

SEC. 7. That parties who have already made entries under the acts approved March third, eighteen hundred and seventy-three, and March thirteenth, eighteen hundred and seventy-four, of which this is amendatory shall be permitted to complete the same upon full compliance with the provisions of this act; that is, they shall, at the time of making their final proof, have had under cultivation as required by this act, an amount of timber sufficient to make the number of acres required by this act.

SEC. 8. All acts and parts of acts in conflict with this act are hereby repealed.

Approved, June 14, 1878.

Timber culture—Act of June 14, 1878.

APPLICATION No. —.

I, —, hereby apply to enter, under the provisions of the act of June 14, 1878, entitled "An act to amend an act entitled 'An act to encourage the growth of timber on the Western Prairies,' the — of section —, in township —, of range —, containing — acres.

LAND OFFICE AT —,
(Date) —, 187—.

I, —, register of the land office, do hereby certify that the above application is for the class of lands which the applicant is legally entitled to enter under the provisions of the timber-culture act of June 14, 1878; that there is no prior valid adverse right to the same, and that the land therein described, together with the lands heretofore entered under this act and the acts of which this is amendatory, in the said section, does not exceed one-quarter thereof.

— Register.

Timber culture—Act of June 14, 1878.

• AFFIDAVIT.

LAND OFFICE AT —,
(Date) —, 187—.

I, —, having filed my application, No. —, for an entry under the provisions of an act entitled "An act to amend an act entitled 'An act to encourage the growth of timber on the Western Prairies,'" approved June 14, 1878, do solemnly — that I am the head of a family [*or over 21 years of age*], and a citizen of the United States [*or have declared my intention to become such*]; that the section of land specified in my said application is composed exclusively of prairie lands, or other lands devoid of timber; that this filing and entry is made for the cultivation of timber, and for my own exclusive use and benefit; that I have made the said application in good faith, and not for the purpose of speculation, or directly or indirectly for the use or benefit of any other person or persons whomsoever; that I intend to hold and cultivate the land, and to fully comply with the provisions of this said act; and that I have not heretofore made an entry under this act, or the acts of which this is amendatory.

Sworn to and subscribed before me this — day of —, 18—.

Timber-culture rulings have been made during the fiscal year as follows:

1. A party having filed an application to contest the validity of a timber-culture entry, together with his application and affidavit for the entry of the land embraced therein, and another party having afterward filed the written relinquishment of the entry by the party, and made application to enter the same land, it was held that the contestant had the preference right to enter, on the existing entry being canceled.—(Commissioner's letter to register and receiver at Niobrara, Nebr., of July 13, 1877, case of Barrett *vs.* Maybury.)

2. Where a party enters a tract on which a previous claimant had complied with the law by breaking and planting, that fact does not excuse him from complying with the timber-culture law in the same respects as if no such breaking or planting had been done.—(Commissioner's letter to Mark G. Lee, esq., of Shelton, Nebr., dated July 24, 1877.)

3. In a case where the growth of timber on a section was confined to fixed limits, with no prospect that it would ever spread to meet the demands of the people that usually reside upon one section, and a timber-culture entry made in the section was contested on the ground that the section was not naturally devoid of timber, the contest was dismissed for the reason that the contestant failed to prove the allegation on which the order for the hearing was based.—(Commissioner's letter to the register and receiver at Benson, Minn., of July 25, 1877, case of Osmundson *vs.* Norby.)

4. Where a party had failed to get the requisite amount of planting done in one year on his entry, which was for 160 acres, on account of sickness, but had actually done the amount of breaking and planting required by law for an entry of 80 acres, he was permitted to relinquish 80 acres and retain the remaining 80 acres, provided that the 20 acres planted in trees should be embraced in the retained portion of the entry.—(Commissioner's letter to the register and receiver at Sioux Falls, Dak., of August 18, 1877, case of Willard D. Gould.)

5. An application for a timber-culture entry was rejected because the affidavit on which it was based was made a considerable time before, and while the land was covered by a previous timber-culture entry. This action was on appeal affirmed by the head of the department.—(Secretary's letter of September 24, 1877, case of John Key.)

6. In contests of timber-culture entries, the contestants in making applications to contest and to enter the lands must tender the amount of fee and commissions at the same time; the register and receiver must note the facts on their records, and the money be retained in possession of the contestants, awaiting final decisions in the respective cases.—(Commissioner's letter to register and receiver at Wichita, Kans., of December, 4, 1877.)

7. Application made for a timber-culture entry must be simultaneous with the making of the required affidavit, if the latter is made at the district land office, and if made elsewhere before some authorized officer, it must be produced within a reasonable time thereafter, but in no case can an affidavit made while the land is appropriated under the provisions of law be received.—(Secretary's letter of December 22, 1877, case of Hiram Campbell.)

8. The requisites of an affidavit for a continuance on the ground of the absence of a witness are that it shows: 1st. The name and residence of the witness, and the materiality of his testimony; 2d. The exercise of proper diligence to procure the attendance of the witness; and 3d. That the witness can be had at the time to which it is sought to have the trial deferred.—(Secretary's letter of May 29, 1878, case of Wilson *vs.* Simmons.)

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Desert-land entries.

Pursuant to instructions issued to the district land officers in the States of California, Oregon, and Nevada, and the Territories of Washington, Idaho, Montana, Utah, Wyoming, Arizona, New Mexico, and Dakota, under the desert-land act of March 3, 1877, as stated on page 41 of the last annual report of this office, returns have been received of entries allowed during the fiscal year ending June 30, 1878, to the extent indicated below, viz.:

In Arizona, 77 entries, calling for 48,552.75 acres; California, 200 entries, 72,578.28 acres; Dakota, 5 entries, 1,541 acres; Idaho, 32 entries, 17,916.45 acres; Montana, 106 entries, 29,842.01 acres; Nevada, 303 entries, 79,295.34 acres; New Mexico, 17 entries, 6,183.62 acres; Oregon, 25 entries, 10,091.32 acres; Utah, 162 entries, 25,830.18 acres; Washington, 6 entries, 540.49 acres; Wyoming, 75 entries, 18,181.61 acres; totals, 1,008 entries, 310,553.05 acres.

Fort Kearney military reservation.

The act of Congress approved July 21, 1876 (19 Stat., pp. 94, 95), entitled "An act to provide for the sale of the Fort Kearney military reservation in the State of Nebraska," provides:

That it shall be the duty of the Secretary of the Interior to cause said tract of land to be surveyed, sectionized, and subdivided as other public lands, and after said survey to offer said land to actual settlers only, at minimum price, under and in accordance with the provisions of the homestead laws: *Provided*, That if any person has made permanent improvements upon said land prior to the first day of June, eighteen hundred and seventy-six (being an actual settler thereon), has exhausted his right to make a homestead entry, such person, or his heirs, may enter one quarter-section of said land under the provisions of the pre-emption laws: *And provided further*, That the heirs of any deceased person who had made settlement and improvement as above described prior to June first, eighteen hundred and seventy-six, may complete the pre-emption or homestead entry of the person so deceased.

The land embraced in said reservation, which lies in part in the Grand Island and in part in the Bloomington land district, having been surveyed, sectionized, and subdivided, according to law, the registers and receivers of the district land offices were instructed by this office how to proceed to dispose of said land under the provisions of the act above quoted, as per letter of the 9th January, 1878. The total area of the reservation is 72,240.47 acres. From this is to be deducted the total area of tracts in sections 16 and 36, which, it is decided by this office, enure to the State under the grant for common schools within the reservation, viz, 3,807.51 acres, which leaves 68,432.96 acres as the quantity of land subject to disposal to actual settlers under said act. Of this quantity, 32,914 acres had been entered at the close of the fiscal year.

Detroit arsenal grounds.

It was stated on page 42 of the last annual report of this office, that the Detroit arsenal grounds were subdivided into town-lots, 153 in number, with streets to render the same accessible, and offered at public sale, pursuant to the provisions of the act of Congress of March 3, 1875 (18 Stat., p. 510). Since that report was made, the sale having been adjourned from time to time, nine unimproved lots have been sold at the appraised prices, amounting to \$1,975 in the aggregate. This leaves 122 of the whole number of lots yet to be sold, appraised with the improvements thereon at \$50,065.

Pawnee reservation in Nebraska..

By the act of Congress of April 10, 1876 (19 Stat. p. 28), provision was made for the survey, appraisement, and sale of the lands embraced in the Pawnee Indian reservation in Nebraska, comprising 278,837.20 acres, with certain buildings and other improvements existing thereon. The lands were surveyed accordingly, and, with the improvements, were appraised by commissioners appointed for the purpose by the Secretary of the Interior. Instructions for the disposal thereof were issued by this office to the register and receiver of the district land office at Grand Island, Nebr., under date of the 5th February, 1878, pursuant to which, after proper advertisement, a public offering was had at Central City, Merrick County, Nebraska, on the 15th July, 1878, continuing until the 19th of the same month, when all the land contained in the reservation was offered for sale in tracts not exceeding 160 acres. Sales were then made to the extent of 13,129.29 acres, leaving 265,707.91 acres for sale thereafter at private entry, according to the terms of the act. Improvements were disposed of with a portion of the land sold, amounting at the appraised price to \$2,975. The remaining lands are to be sold at the appraised prices, which range from \$1.25 to \$6 per acre, qualified, however, by the provision contained in the act that none shall be sold for less than \$2.50 per acre. The purchase money is required to be paid, "one third cash in hand, and the balance in two equal annual payments, drawing interest at the rate of six per centum per annum from the day of sale."

Sac and Fox and Otoe and Missouri Indian reservations in Kansas and Nebraska.

As was stated in the last annual report, on page 43, a portion comprising 6,398.20 acres of the Sac and Fox reservation, and a portion comprising 119,846.17 acres of the Otoe and Missouri reservation in Kansas and Nebraska, have been brought into market pursuant to the provisions of the act of Congress of August 15, 1878 (19 Stat., p. 208). During the last fiscal year entries have been made of the Sac and Fox lands to the amount of 3,120.54 acres, and of the Otoe and Missouri to the amount of 25,423.66 acres.

Entries of these lands are restricted to the class of actual settlers by the terms of said act. They are subject to entry at the district land office at Beatrice, Nebr., in quantities not exceeding 160 acres to each settler, at prices fixed by appraisement of the several tracts, but not less in any case than \$2.50 per acre. The terms of payment with reference to both reservations have been fixed by the Secretary of the Interior under the act as the following, viz: One-third of the purchase money is to be paid in cash at the date of entry, one-third in one year, and one-third in two years thereafter, with interest at 6 per centum per annum.

Cherokee strip.

In the annual report of this office dated November 1, 1876, pages 21 and 22, the condition at that date of what are known as the "Cherokee strip" lands was stated, and the area thereof remaining unsold was given as 295,577.84 acres.

On the 28th of February, 1877, an act was passed by Congress which provided that this remnant should be offered for sale at the proper district offices to settlers at \$1.25 per acre, and that all of said lands re-

maining unsold after one year from the date of such offering should be subject to sale at not less than \$1 per acre, parties purchasing being restricted to 160 acres each. The third section of this act provided that it should take effect upon the date of its acceptance by the legislature of the Cherokee Nation, who were required to file a certificate of such acceptance; which they did. Thereupon, by direction of the Secretary of the Interior, this office issued the necessary instructions to the district officers at Independence, Wichita, and Larned, Kans., and the lands were offered for sale to actual settlers, in accordance with the provisions of this act, in the month of February of the present year. At the close of the fiscal year on the 30th June last, 5,189.44 acres had been sold, embraced in thirty-nine entries.

In reference to the above and certain other Indian lands in Kansas, further information is contained in the following—

Tabular statement showing the number of declaratory statements filed, entries made, acres entered, and, in case of the Osage Indian ceded lands, where payment is made by installments, the number of receipts and certificates issued for the classes of Indian lands in the State of Kansas therein mentioned, during the fiscal year ending June 30, 1878.

Offices.	Cherokee strip, act of February 28, 1877.		Osage Indian ceded lands, act of August 11, 1876.					Osage Indian trust and diminished-reserve lands, sec. 2283 Rev. Stats.		
	Entries.	Area.	Declaratory statements.	Entries.	Receipts.	Certificates.	Area.	Declaratory statements.	Entries.	Area.
		Acres.								
Independence . . .	4	329. 10	215	1, 186	2, 554	627	164, 785. 61	295	92	10, 260. 93
Wichita	35	4, 860. 34	.....	.....	.....	.....	.....	2, 056	827	126, 156. 54
Larned . . . . .	.....	.....	.....	.....	.....	.....	.....	203	29	4, 358. 30
Total	39	5, 189. 44	215	1, 186	2, 554	627	164, 785. 61	2, 554	948	140, 775. 77

Table showing the total number of declaratory statements filed, entries made, receipts and certificates issued, and acres entered in case of the Osage Indian ceded lands at Independence, Kans., under the act of August 11, 1876, up to the 30th of June, 1878.

Date.	Declaratory statements.	Entries.	Receipts.	Certificates.	Area.
					Acres.
From date of act to December 31, 1876	3, 536	444	449	173	62, 536. 87
January 1, 1877, to December 31, 1877	341	2, 515	3, 155	999	356, 610. 86
January 1, 1878, to June 30, 1878	53	99	950	210	13, 015. 43
Total	3, 930	3, 058	4, 554	1, 382	432, 163. 16

In the division of this office having charge of sales at ordinary private entry, of homestead, timber-culture, and desert-land entries, and the class of entries allowed in the Indian and military reservations, above referred to, there were received during the fiscal year ending June 30, 1878, 30,160 letters. The number of letters written during the year was 20,648, which covered 11,866 pages of record. The number of cases examined, approved, and put in course of patenting was 23,510, and the number of cases posted in tract books was 114,223. There were 393

cases of suspended entries adjudicated upon principles of equity and justice, and the adjudications submitted to the board constituted of the Secretary of the Interior and the Attorney-General, under sections 2450 to 2457 of the Revised Statutes of the United States, as amended by act of Congress of February 27, 1877. Of these adjudications 366 were approved and 27 rejected by the board. Lists of these cases are attached on pages 186 and 200.

It devolves upon this division, as fast as surveys of public lands are made, to open tract books, in which are to be noted in pencil the smallest legal subdivisions established by the surveys and the areas thereof; to make entries therein of all private claims, reservations, pre-emption and homestead filings, cash and other entries, selections by States and corporations under Congressional grants, warrant and scrip locations, and other disposals; to examine the greater portion of the same, with regard to the regularity of the papers returned, and the sufficiency of the proof, where proof is required; to see that any errors therein are rectified, preparing and sending out the necessary correspondence for that purpose, meantime holding the cases suspended, and when they are brought to the condition proper for final action in this office, then to approve the same for patenting, or hold them for cancellation, as the case may be; to investigate and pass upon a multitude of contested cases; to receive and submit appeals to the head of the department, the appellate authority, and communicate the result to the proper officers and the parties concerned.

In addition to this, there is much business of a miscellaneous nature, not falling under any of the classes referred to, as the work necessary for disposing of abandoned reservations, under special acts of Congress, or for giving effect to such acts in favor of private parties having rights to be adjusted with regard to public lands, or for restoring to market lands withdrawn from time to time from various causes, as an example of which the case of the public lands in the Southern States now being offered at public sale pursuant to the act of June 22, 1876, may be mentioned.

For some time past the clerical force has not been sufficient to meet the demands of the current business, and it has consequently fallen in arrears. The number of letters remaining unanswered in this division is 2,833, a number somewhat greater than the average number referred to the division monthly during the last fiscal year. The number of suspended cases, requiring more or less examination and further action before they can be disposed of, including a large number of contested cases, is 30,267. There are some 28,000 entries remaining unposted in the tract books, besides a considerable quantity of miscellaneous work, as State selections and approvals of selections to be entered on the books, new tract-books to be opened and recent surveys noted therein, &c., which ought to be brought up, but which, unless the clerical force is increased, must fall still further behind as time advances.

Grants for railroads, wagon roads, and canals.

In July, 1872, a division was organized in this office to which are referred all questions growing out of the adjustment of railroad, wagon road, canal, and other internal improvement grants.

The examination of settlers' claims in conflict with those of railroad companies forms a large part of the business of this division.

The reports of construction of land-grant railroads during the fiscal year show an aggregate of 244.30 miles, which, taken with those pre-

viously reported (14,344.18 miles), and adding for error in previous statement of length (40 miles), make a total of 14,628.48 miles of such roads, distributed as follows:

States and Territories.	Miles.	States and Territories.	Miles.
Alabama.....	822	Mississippi.....	406
Arkansas.....	575	Missouri.....	703
California.....	1,228.89	Nebraska.....	832
Colorado.....	298	Nevada.....	460
Dakota.....	196	Oregon.....	227
Florida.....	247	Texas (where there are no United States	
Illinois.....	705.72	lands).....	342.87
Indian Territory.....	155	Utah.....	255
Iowa.....	1,580	Washington.....	106
Kansas.....	1,654	Wisconsin.....	533
Louisiana.....	152	Wyoming.....	400
Michigan.....	1,005		
Minnesota.....	1,745	Total.....	14,628.48

During the fiscal year there were certified for railroad purposes 606,340.65 acres, showing a decrease as compared with the previous year of 94,451.31 acres; 5,628 acres were certified for canal purposes, and none for wagon roads.

The lists of selections now awaiting examination cover 1,394,275.04 acres. Fifteen patents were issued, covering 125 pages of record, and fourteen approved transcripts, covering 103 pages of record.

In their appropriate place in this report will be found carefully prepared tables showing the condition of the adjustment of the various land grants at the close of the fiscal year.

The number of contested cases received from the organization of the division, in 1872, to June 30, 1878, was 3,069, of which 2,049 had at the latter date received final action and been closed; 745 had been acted upon but not finally disposed of, and 275 remained on which no action whatever had been taken by the office.

Of "*ex parte*" cases 4,063 were received up to the close of the fiscal year, 2,525 of which had at that time been finally acted upon and closed, 462 had received action but yet remained open, and 1,076 had received no official attention save their entry upon the books of the division.

The number of letters received during the fiscal year was 4,472, and of letters written 5,601. The record of the latter covered 5,085 pages.

Changes of rulings and decisions affecting railroad grants.—Since my last annual report no important decisions affecting railroad interests have been made by this office. Several have, however, been rendered by the department, as follows:

Case of *Streeter vs. Missouri, Kansas and Texas Railway Company*. *Held*, That the act of April 21, 1876, being a remedial statute, must be construed liberally, and, whether constitutional or not, must be enforced by the department; that its effect was not at all diminished by the fact that patent for the land claimed had already issued to the company, and that under it second patents must issue, when necessary, to parties whose entries are reinstated and confirmed under the act.

Case of *Dudymott vs. The Kansas Pacific Railway Company*. *Held*, That under the act of July 1, 1862, lands not sold by the company within three years after the completion of the road became open to settlement and subject to pre-emption and sale by the government like other lands. This decision affects all the companies known as the Pacific companies, obtaining grants by the acts of July 1, 1862, and July 2, 1864, or on similar conditions, viz, the Union, Kansas, Denver, Sioux City and Pacific, Central, and Western Pacific. The question of its applicability to

the Central Branch Union Pacific and Burlington and Missouri River Railroad, in Nebraska, is yet under consideration.

Case of Tome and others *vs.* The Southern Pacific Railroad Company. *Held*, That, though the company obtained a grant by the act of July 27, 1866, the lands upon which it would operate were not identified until the date of the passage of the joint resolution of June 28, 1870, authorizing the construction of the road upon the line designated on the map filed in the department June 30, 1867, and that the rights of all persons who were actual settlers at the date of the joint resolution were protected.

Case of Hogland *vs.* Northern Pacific Railroad Company. *Held*, That lands within limits of railroad grant, and also embraced by the Sisseton, Wahpeton treaty, signed (as amended by Congress) May 2-19, 1873 (the Indian title not having been extinguished at the time the grant was made, although extinguished prior to the attachment of the company's right by definite location of road), passed to the company under its grant.

Case of Stainbrook *vs.* Atchison, Topeka and Santa Fé Railroad Company. *Held*, That by a correct interpretation of the phrase "under the decisions and rulings of the Land Department," as used in the second section of the act of April 21, 1876, all entries made either in pursuance of special instructions, or in accordance with the rulings in force at the date of said entries, are confirmed. Also, that, under the "Boyd" decision of April 28, 1871, and until the "Catlin-Frank" decision of May 1, 1873, it was the ruling that if a homestead claim had attached to land at the date of definite location it was excepted from the grant, whether such claim were valid and subsisting at that time or not, and that entries allowed between the dates named, and in accordance with such interpretation, are confirmed by the act of April 21, 1876.

The text of these decisions will be found below.

Readjustment of grants under decisions of Supreme Court.—Under the decision of the Supreme Court in the case of the Leavenworth, Lawrence and Galveston Railroad Company *vs.* The United States, which established the principle that in railroad grants indemnity was not given for lands within the limits of the grant disposed of prior thereto, a readjustment of these grants was made necessary. Under the most favorable circumstances the progress of such work would be apparently slow, though proceeding with all the dispatch compatible with correctness, yet it has been unavoidably procrastinated and retarded by the smallness of the clerical force of the division. Up to June 30, 1878, the grants for the Hastings and Dakota, Wisconsin Central, California and Oregon, Saint Paul and Pacific, Saint Vincent Extension (constructed road only), Southern Pacific (main line), and Saint Joseph and Denver City Railroad Companies had been carefully examined and the quantity of lands each company was entitled to under the decision ascertained.

Lands within railroad grants reserved for adjustment of foreign grant claims.—The Supreme Court decision in the case of Newhall *vs.* Sanger, following the Osage ceded lands decisions, had particular reference to the attachment of railroad rights upon lands covered at the time of the railroad grant by a foreign-grant claim and settled the question adversely to the railroad company, holding that lands reserved for the adjustment of a foreign-grant claim at the time of making the railroad grant did not pass under the latter, and, on their release from reservation, by adjustment or rejection of the foreign-grant claim, became a part of the public domain.

This decision is of importance in the adjustment of railroad grants in the State of California, and will render necessary a great amount of care-

ful work. Prior to its rendition the department had held that the railroad grant attached to such lands on their release from reservation, and under such construction thousands of acres were patented to the companies, to which, under the before-mentioned decision, they were not entitled. Consequently each grant will have to be examined in connection with the foreign-grant claims, and lists of lands excepted and erroneously patented made up for appropriate action thereon. So far the lands embraced in one grant claim only, the Manuel Diaz, have been ascertained and the matter laid before the Secretary, and another, the Moquelamos, is partially prepared. The former conflicts with the grant to the California and Oregon, and the latter with that to the Western Pacific Railroad.

The records of this office are not perfect enough to establish the reservations of lands for the many foreign-grant claims which, genuine or fraudulent, were presented and fought to a termination, successful or otherwise, after legal conflicts many years in duration. These can only be established from the records of the surveyor general of California, who has been called upon to give the necessary information. Some idea of the extent to which these grant claims may or do conflict with railroad grants may be formed from the statement that the confirmed and surveyed claims alone are 576 in number.

Restoration of Missouri River, Fort Scott and Gulf Railroad lands.—By the act of March 3, 1877 (19 Stat., p. 404), part of the act making a grant of lands to the State of Kansas to aid in the construction of the Kansas and Neosho Valley Railroad was repealed, the company, on surrender of the lands not disposed of by it, and payment of moneys received for those disposed of, was released from the obligations imposed by the grant, and the lands surrendered were to be restored to market, by proclamation of the President, and opened to settlement and purchase under the homestead laws only.

Up to the close of the fiscal year the company had not received its clearance because of questions regarding the validity of its reassignment of the lands to the United States in view of the mortgage previously made by it to secure its bonds. Since the opening of this year, however, these questions have been settled, the surrender accepted, and lists of the lands affected have been prepared with a view to their restoration in a short time.

Restoration of lands in Iowa withdrawn for Mississippi and Missouri Railroad.—An act approved June 15, 1878, (U. S. Statutes, second session Forty-fifth Congress, pamph. edition, p. 133), directs the restoration to settlement, under the pre-emption and homestead laws, of all vacant unappropriated lands heretofore withdrawn for the Mississippi and Missouri Railroad, in Iowa, situated more than twenty miles from the amended line of route as located under the act approved June 2, 1864, and not including any lands embraced in the confirmatory act of January 31, 1873.

A complete list of all vacant lands to be restored under this act has been prepared, and embraces a little less than five hundred acres (474.84). Yet to ascertain the quantity an examination of the records regarding every tract between the old 15 and outside the new 20 mile limits of the grant had to be made.

Right of way railroads.—The number of railroad companies claiming the benefits of the act of March 3, 1875 (18 Stat., p. 482), granting to railroads the right of way over the public lands, made manifest the need of instructions under which a consistent and uniform practice, in conformity with the requirements of the law, would be obtained. Accord-

ingly, the following circular, embodying the law and the requirements of the department thereunder, was prepared and issued :

Circular of instructions under the act of Congress approved March 3, 1875, "granting to railroads the right of way through the public lands of the United States."

DEPARTMENT OF THE INTERIOR, GENERAL LAND OFFICE,
Washington, D. C., March 9, 1878.

[CHAPTER 152.—An act granting to railroads the right of way through the public lands of the United States.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the right of way through the public lands of the United States is hereby granted to any railroad company duly organized under the laws of any State or Territory, except the District of Columbia, or by the Congress of the United States, which shall have filed with the Secretary of the Interior a copy of its articles of incorporation, and due proofs of its organization under the same, to the extent of one hundred feet on each side of the central line of said road; also the right to take from the public lands adjacent to the line of said road, material, earth, stone, and timber necessary for the construction of said railroad; also grounds adjacent to such right of way for station buildings, depots, machine shops, side-tracks, turn-outs, and water-stations, not to exceed in amount twenty acres for each station, to the extent of one station for each ten miles of its road.

SEC. 2. That any railroad company whose right of way, or whose track or road bed upon such right of way, passes through any canyon, pass, or defile, shall not prevent any other railroad company from the use and occupancy of the said canyon, pass, or defile, for the purposes of its road, in common with the road first located, or the crossing of other railroads at grade. And the location of such right of way through any canyon, pass, or defile shall not cause the disuse of any wagon or other public highway now located therein, nor prevent the location through the same of any such wagon road or highway where such road or highway may be necessary for the public accommodation; and where any change in the location of such wagon road is necessary to permit the passage of such railroad through any canyon, pass, or defile, said railroad company shall, before entering upon the ground occupied by such wagon road, cause the same to be reconstructed at its own expense in the most favorable location, and in as perfect a manner as the original road: *Provided*, That such expenses shall be equitably divided between any number of railroad companies occupying and using the same canyon, pass, or defile.

SEC. 3. That the legislature of the proper Territory may provide for the manner in which private lands and possessory claims on the public lands of the United States may be condemned; and where such provision shall not have been made, such condemnation may be made in accordance with section three of the act entitled "An act [to amend an act entitled an act] to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes, approved July first, eighteen hundred and sixty-two," approved July second, eighteen hundred and sixty-four.

SEC. 4. That any railroad company desiring to secure the benefits of this act, shall, within twelve months after the location of any section of twenty miles of its road, if the same be upon surveyed lands, and, if unsurveyed lands, within twelve months after the survey thereof by the United States, file with the register of the land office for the district where such land is located a profile of its road; and upon approval thereof by the Secretary of the Interior the same shall be noted upon the plats in said office; and thereafter all such lands over which such right of way shall pass shall be disposed of subject to such right of way: *Provided*, That if any section of said road shall not be completed within five years after the location of said section, the rights herein granted shall be forfeited as to any such uncompleted section of said road.

SEC. 5. That this act shall not apply to any lands within the limits of any military, park, or Indian reservation, or other lands specially reserved from sale, unless such right of way shall be provided for by treaty stipulation or by act of Congress heretofore passed.

SEC. 6. That Congress hereby reserves the right at any time to alter, amend, or repeal this act, or any part thereof.

Approved March 3, 1875.

The regulations under the law are as follows:

I. Any railroad company desiring to obtain the benefits of the law is required to file—

First. A copy of its articles of incorporation, duly certified to by the proper officer of the company, under its corporate seal.

Second. A copy of the State or Territorial law under which the company was organ-

ized (when organized under State or Territorial law), with certificate of the governor or secretary of the State or Territory, that the same is the existing law.

Third. When said law directs that the articles of association, or other papers connected with the organization, be filed with any State or Territorial officer, the certificate of such officer that the same have been filed according to law, with the date of the filing thereof.

Fourth. The official statement under seal of the proper officer that the organization has been completed; that the company is fully authorized to proceed with the construction of the road according to the existing law of the State or Territory; and that the copy of the articles filed with the Secretary of the Interior is true and correct.

Fifth. A true list, duly verified by the sworn statement of the president, under the seal of the company, showing the names and designation of its respective officers at the date of the presentation of the proofs at the department.

These may be transmitted directly to the Secretary of the Interior, or through this office, or they may be filed with the register of the land district in which the principal terminus of the road is to be located, who will forward them to this office.

II. Upon the location of any section of the line of route of its road, not exceeding twenty miles in length, the company must file with the register of the land district in which such section of the road, or the greater portion thereof, is located, a map for the approval of the Secretary of the Interior, showing the termini of such portion of the road, its length, and its route over the public lands according to the public surveys.

The map must be filed within twelve months after the location of such portion of the road, if located upon surveyed lands, and, if upon unsurveyed lands, within twelve months of the survey thereof. It must bear—

First. Affidavit of the chief engineer of the company (or person employed to make the survey if the company has no chief engineer) setting forth that the survey of the line of route of the company's road from ——— to ———, a distance of ——— miles (giving termini and distance), was made by him (or under his direction) as chief engineer of the company (or as surveyor employed for the purpose, if such be the case), under authority of the company, on or between certain dates (giving the same), and that such survey is accurately represented on the map. If the affidavit is made by the chief engineer of the company, it must be signed by him officially.

Second. Official certificate of the president of the company attested by its secretary under its corporate seal, regarding the person signing the affidavit, either as to his being the chief engineer of the company or as to his employment by the company for the purpose of making such survey; that the survey was made under authority of the company; that the line of route so surveyed and represented by the map was adopted by the company, by resolution of its board of directors of a certain date (giving the date), as the definite location of the line of route of the company's road from ——— to ———, a distance of ——— miles (giving termini and distance), and that the map has been prepared to be filed for the approval of the Secretary of the Interior, in order that the company may obtain the benefits of the act of Congress approved March 3, 1875, entitled "An act granting to railroads the right of way through the public lands of the United States."

III. It will be observed that the requirements of the law regarding the filing of the proper papers and maps are conditions precedent to the obtainment of the right to construct a railroad over the public lands, or to take therefrom material, earth, stone, and timber for its construction, or to occupy them for station or other purposes. It is therefore imperative that proper steps, as pointed out in this circular, should be taken by a company, and the approval of the Secretary of the Interior obtained, prior to the construction of any part of its road or its occupancy of the public lands in any manner.

IV. Should the company desire to construct its road over lands prior to their survey, it may file, in manner as heretofore indicated, a map of its surveyed route, without waiting until the lands are surveyed, and, upon approval thereof, may proceed with construction, but, immediately on the survey of the lands over which the road passes, the company must also file a map showing the line of route of its road over such lands, in order that the proper notes and records for the protection of its rights may be made.

V. Upon construction of any section of the line of its road the company must file with the register of the proper land district, for transmission to this office, a map of such constructed portion of road, bearing—

First. Affidavit of the chief engineer or person under whose supervision the portion of the road was constructed, that its construction was commenced on ———, and finished on ——— (giving dates); that the line of constructed road is accurately represented upon the map, and that it conforms to the line of located route which received the approval of the Secretary of the Interior on ——— (giving date).

Second. Certificate of the president of the company, attested by the secretary under the corporate seal, that the portion of the road indicated by the map was actually constructed at the time as sworn to by the chief engineer of the company (or person

making the affidavit), and on the exact route shown on the map; that in its construction the road does not deviate from the line of route approved by the Secretary of the Interior, and that the company has in all respects complied with the requirements of the act of March 3, 1875, granting right of way through the public lands.

Any variation within the limits of one hundred feet from the central line of the road as located will not be considered a deviation from such line, but where, upon construction, it is found necessary to transgress the limits within which the company has right of way, the company must at once file proper map of amended route for approval.

VI. If the company desires to avail itself of the provision of the law which grants the use of "ground adjacent to the right of way for station buildings, depots, machine shops, side tracks, turnouts, and water stations, not to exceed in amount twenty acres for each station, to the extent of one station for each ten miles of its road," it must file for approval, in each separate instance, a plat showing, in connection with the public surveys, the surveyed limits and area of the ground desired. Such plat must bear—

First. Affidavit of the chief engineer or surveyor by whom or under whose supervision the survey was made, to the effect that the plat accurately represents the surveyed limits and area of the grounds required by the company for station or other purposes, under the law (stating the purposes), in ——— (giving section, township, range, and State or Territory); that the company has occupied no other grounds for station or other similar purposes upon public lands within ten miles of the grounds designated on the plat, and that, in his belief, the grounds so represented are actually and to their entire extent required by the company for the necessary uses contemplated by law.

Second. Certificate of the president of the company, attested by the secretary under the corporate seal, that the survey of the tract represented on the plat was made under authority and by direction of the company by or under supervision of its chief engineer (or person making the survey), whose affidavit is attached; that such survey accurately represents the grounds actually and to their entire extent required by the company for station (or other) purposes in ——— (giving section, township, range, State or Territory), allowed by the provisions of the act of Congress, approved March 3, 1875, granting to railroads the right of way through the public lands; that the company has no station or other grounds upon public lands within a distance of ten miles from the grounds represented on the plat; and that the company, by resolution of its board of directors of a certain date (giving the date), directed the proper officers to present the plat for the approval of the Secretary of the Interior in order that the company may obtain the use of the grounds under the law above referred to.

VII. Registers at the various land offices are directed to require that such papers and maps herein referred to as may be filed with them for transmission to this office shall conform to these regulations. Where differences of opinion may arise between themselves and the persons filing papers, respecting the proper construction of these requirements, the papers may be transmitted with letter stating the differing opinions.

They are also instructed, in any case where information is received by them of the construction of railroads within their districts, of the rights of which they have no official knowledge, to promptly advise this office of the facts in order that proper information or directions in the matter may be given them.

J. A. WILLIAMSON.

Commissioner.

Approved.

C. SCHURZ,

Secretary of the Interior.

MARCH 22, 1878.

Payment for surveys of railroad lands.—The sundry civil appropriation act of July 31, 1876 (19 Stat., p. 121), contains the requirement—

That before any land granted to any railroad company by the United States shall be conveyed to such company, or any persons entitled thereto under any of the acts incorporating or relating to said company, unless such company is exempted by law from the payment of such cost, there shall first be paid into the Treasury of the United States the cost of surveying, selecting, and conveying the same by the said company or persons in interest.

This enactment, buried in an appropriation bill, escaped notice, and was not brought to my attention until a short time ago, since which no patents for lands, liable to such costs, have issued.

The question of exemption from payment of such costs is now before the department for consideration and action.

Railroad grants lapsed by reason of non-completion of roads.—In my last report I submitted a list of railroad grants which had expired by

limitation, the roads for whose benefit they were made not having been constructed within the period prescribed by law, recommending that the attention of Congress be specially called to the subject, and that legislation be urged looking either to the enforcement of the forfeiture of the grants or extending the time for the completion of the roads. At the last session of Congress the effect of calling attention to the matter was shown by the introduction of various bills looking toward enforcement of the forfeiture, one (H. R. 3544) being reported by the House Committee on Public Lands as a substitute for others.

I have the honor to renew the recommendations on the subject, and earnestly hope that legislative action will speedily be taken, either for the relief of the corporations or the restoration of the lands to market.

During the fiscal year just closed no grants have lapsed.

Proofs of the construction of the Alabama and Florida, and Alabama and Chattanooga Railroads, the grants for which were last year reported as lapsed because of the non-completion of the roads within the periods prescribed by law, have been furnished, and those grants are consequently omitted from the list. The Southern Minnesota Railroad grant, left out by oversight from last year's report, is now included. (List attached on page 184.)

The Little Rock and Fort Smith grant was also reported as lapsed, but it has been ascertained that maps of constructed road had been filed in the department, showing the completion of the road within the time, but not in the place and manner prescribed by law.

Clerical force.—In no part of the office is the want of adequate clerical force more felt than in this division. Including the chief of division, there are now only twelve persons assigned to duties at which twenty could be, and at times have been, profitably employed. Nearly a thousand *ex parte* cases alone have been received since the close of the fiscal year, all of which are unacted on, making over 1,900 such cases on hand and untouched save to docket them.

There are nearly 2,400 *ex parte* cases and over 1,000 contested cases yet remaining open, action on which is retarded by the want of clerical force to perform the work. When to this work are added the readjustment of grants under the Osage ceded lands decisions; the examinations, &c., necessary to give proper effect to the Newhall-Sanger decision, and the correspondence, already large, superinduced by the Dudymott decision, it must be apparent to all that the number of clerks is entirely insufficient to properly keep up even the current portion of it, to say nothing of bringing up arrears.

I submit in full the following decisions affecting railroad grants:

The act of Congress approved April 21, 1876, is purely a remedial statute, and should therefore be liberally construed.

The words "pre-emption and homestead entries" refer to settlements in good faith by qualified persons with a view to entering the lands under the provisions of the pre-emption and homestead laws as soon as they were surveyed and came regularly into market.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., October 12, 1877.

SIR: I have considered the case of M. C. Streeter *vs.* The Missouri, Kansas and Texas Railroad Company, involving lots 3, 4, and 5, section 7, township 35 south, range 23 east, Independence, Kans., on appeal from your decision of October 26, 1876, adverse to the railroad company.

The township plat was filed in the local land office June 15, 1869.

This land is within the ten-mile limits of the grant of July 26, 1866, to aid in the construction of said road, the right of which is held to have attached on the date of filing a map of its definite location January 7, 1868. The notice of the withdrawal of these lands for the benefit of said road was received at the local land office October 20, 1869. M. C. Streeter filed declaratory statement 3226 for said land January 20, 1870, alleging settlement October 25, 1868, and made final proof and offered to pay for the

same July 11, 1872, but his application was refused by the local officers because his settlement was made subsequent to the definite location of said road.

This decision of the local officers was affirmed by your predecessor, Commissioner Drummond, and subsequently became final in default of appeal.

On June 19, 1876, counsel for Streeter made application to have his entry reinstated and passed to patent under the provisions of the first section of an act of Congress approved April 21, 1876, entitled "An act to confirm pre-emption and homestead entries of public lands within the limits of railroad grants in cases where such entries have been made under the regulations of the Land Department." You decided that the defects in Mr. Streeter's claim were cured by the act above referred to, and held it for reinstatement, and the railroad company has appealed from your decision.

The section of this act relied upon to give validity to Mr. Streeter's entry is in the following language, viz: "That all pre-emption and homestead entries, or entries in compliance with any law of the United States of the public lands, made in good faith by actual settlers upon tracts of land of not more than one hundred and sixty acres each, within the limits of any land grant prior to the time when notice of the withdrawal of the lands embraced in such grant was received at the local land office of the district in which such lands are situated, or after their restoration to market by order of the General Land Office, and where the pre-emption and homestead laws have been complied with, and proper proofs thereof have been made by the parties holding such tracts or parcels, they shall be confirmed, and patents for the same shall issue to the parties entitled thereto."

From the facts before stated, it will be seen that Mr. Streeter made his settlement before this land was surveyed and before it was withdrawn for railroad purposes, and before the road was built, but after the right of the road attached; and as his right must depend upon the construction to be placed upon the section of the act above quoted, it is of primary importance that the reasons which induced Congress to pass the act should be inquired into in order to fix with certainty its character and determine what legal rules should govern its construction. An examination of the debates on this act while it was pending before the two houses of Congress discloses the fact that Senators and Representatives were fully advised that this department had decided, in the construction of many railroad grants, that the right of the roads *by the terms of the grants* had attached to the lands within the granted limits, immediately upon the filing of maps of definite location. They were informed by Senators and Representatives from the Western States and Territories, and by numerous petitions coming directly from the people, that thousands of hardy pioneers had settled upon and cultivated and improved these lands after the maps of definite location had been filed, but months before the withdrawal and before a survey had been made, by which they could distinguish the odd from the even sections; that their settlements were made in perfect good faith with a view to entering the lands under the provisions of the pre-emption and homestead laws, as soon as they came into market; that they were without notice of any railroad claim; and that they had been, or were about to be, deprived of their homes and the fruits of years of industry by the construction which had been placed upon the railroad grants.

It was this state of facts which induced Congress to pass the act now under consideration, which is a purely remedial statute, and must therefore receive a liberal construction, to the end that the remedy sought may be secured. "A remedial statute is a statute giving a party a remedy for a wrong where he has none, or a different one before." (Chitty's Bla., 87, note 25.) "Remedial statutes must be construed according to the spirit, for, in giving relief against fraud, or in the furtherance and extension of natural right and justice, the judge may safely go beyond even that which existed in the minds of those who framed the law." (*Id.*, p. 88, note 30, by Chitty.) In the case of *Atcheson vs. Everitt* (Cowper, 382), Lord Mansfield held that "in remedial cases the construction of statutes is extended to other cases within the reason and rule of them." (See, also, *Coke Litt.*, 45, 3 Reports, 60; *Dwarris*, p. 665.)

That these rules of construction have received the uniform sanction of American courts and jurists is evidenced by the following authorities, namely: "Remedial statutes must be construed liberally, and where the meaning is doubtful they must be construed to extend the remedy." (*White vs. Steam-Tug Mary Ann*, 6 Cal., 462; *Cullerton vs. Mead*, 22 Cal., 95; *Jackson vs. Warren*, 32 Ill., 331.)

"In construing a remedial statute which has for its end the promotion of important and beneficial public objects, a large construction is to be given, when it can be done without doing actual violence to its terms." (*Walcott vs. Pond*, 19 Conn., 597; *New Orleans vs. St. Romeo*, 9 La., 573.)

"A remedial statute must be so construed as to correct the mischief at which it is aimed. Its policy, when evident, must be respected and enforced." (*Fox vs. Sloo*, 10 La., 11; *Fox vs. New Orleans*, 12 *Id.*, 154.)

Remedial statutes are to be so construed, if possible, as to suppress the mischief and advance the remedy. (*Davenport vs. Barnes*, 2 N. J. L. (1 Penn.), 211; *Wilber vs. Paine*, 1 Ohio, 256; *Pancost vs. Ruffin*, *Id.*, 385; *Lessee vs. Burgett*, *Id.*, 481; *McCor-*

mick *vs.* Alexander, 2 *Id.*, 74; Franklin *vs.* Franklin, 1 Md. Ch., 342.) Mr. Streeter settled on said tract before the withdrawal, but did not file his declaratory statement until some months after that time, and the only point to be considered is, whether the words of the statute, viz, "that all pre-emption and homestead entries * * * prior to the time when notice of the withdrawal * * * was received at the local land office," can be held to include his claim.

There can be no doubt that it was the intention of Congress to afford relief to all persons who had settled on this class of lands *after* the filing of maps of definite location, *but before notice of withdrawal was received at the local office.* The words "*public lands*" presupposed that the lands are *public* for the purpose of the act; and the words "*pre-emption and homestead entries,*" in the special sense in which they are used, refer to settlements made in good faith, by persons possessing the requisite legal qualification, with a view to entering the lands under the provisions of the pre-emption and homestead laws, whenever they were surveyed and came regularly into market.

But even if this were not the rational inference to be drawn from the intent of Congress and the language used, I should be constrained to reinstate Mr. Streeter's claim, because it comes within the reason of the rule which would require me, in the construction of doubtful language in a statute of this character, to suppress the mischief and advance the remedy by going even beyond "that which existed in the minds of those who framed the law."

It is no part of my duty to pass upon the constitutionality of this act, or to question its validity, as that is a matter coming exclusively within the jurisdiction of the courts; and so long as it remains a law upon the statute books it will be my duty as an executive officer to see that the letter and spirit of it are enforced.

I therefore hold that Mr. Streeter's claim is cured by the first section of the act above cited, and upon payment of the purchase money a certificate to that effect will issue in the usual manner without further proof of residence, improvement, or cultivation on the land than that made July 11, 1872.

Your decision is affirmed for the reasons herein stated, and the papers transmitted with your letter of February 7, 1877, are herewith returned.

Very respectfully,

C. SCHURZ, *Secretary.*

The act of April 21, 1876, forms an exception to the general rule announced in *Stone vs. United States* (2 Wall., 525), and commands the issuance of patents for lands falling within its provisions, notwithstanding the fact that patent may have previously issued to a railroad company for the same land.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., February 7, 1878.

SIR: I have considered the application of Messrs. Britton & Gray, attorneys for the Missouri, Kansas and Texas Railroad Company, for a reconsideration of my decision of October 12, 1877, allowing M. C. Streeter to enter lots 3, 4 and 5, section 7, township 35 south, range 23 east, Independence, Kans., under the pre-emption laws, pursuant to the provisions of the first section "of an act to confirm pre-emption and homestead entries of public lands within the limits of railroad grants, in cases where such entries have been made under the regulations of the Land Department," approved April 21, 1876. This application is based on the ground that as the land in question was patented to said company on August 17, 1876, the legal title thereto has become vested, and no other patent can issue until the one outstanding is annulled and avoided by a court of competent jurisdiction; that a patent issued to Mr. Streeter under such circumstances would pass no interest in the land, and its only effect would be to cloud the title of the company.

I am of opinion that counsel have correctly stated the general rule, that a second patent should not be issued for the same land until the first is judicially avoided. This rule has received the sanction of the Supreme Court of the United States (*U. S. vs. Stone*, 2 Wallace, p. 525), and should be adhered to as a general rule of practice. This rule, however, is subject to exceptions, and must give way in the presence of a statute imposing the specific duty of issuing a patent.

The first section of the act under consideration furnishes an unmistakable exception to the general rule. Its language is as follows, viz:

"That all pre-emption and homestead entries, or entries in compliance with any law of the United States, of the public lands, made in good faith by actual settlers, upon tracts of land of not more than one hundred and sixty acres each, within the limits of any land grant, prior to the time when notice of the withdrawal of the lands embraced in such grant was received at the local land office of the district in which such lands are situated, or after their restoration to market by order of the General Land Office, and where the pre-emption and homestead laws have been complied with, and proper proofs thereof have been made by the parties holding such tracts or parcels, they shall be confirmed, and patent for the same shall issue to the parties entitled thereto."

The words "and patent for the same shall issue" are plain and unambiguous, and command the issuance of a patent, without the exercise of discretionary power, pro-

viding the claimant has performed the acts which bring his claim within the confirmatory provisions of the act.

Whether a patent issued under such circumstances will be good, void, or voidable, is not for me to decide, as that is a question which the courts alone have authority to determine.

I am of opinion that patents must issue on all claims confirmed by this act, and if wrong or injury results therefrom the party injured must seek redress in the proper judicial tribunal.

The plain duty of an executive officer is to execute the laws as he finds them, not to refuse or neglect to execute laws which Congress has enacted because he may not agree with the law-making power as to their policy or validity.

The intention of Congress that patents shall issue on all claims confirmed by this act is clearly expressed, and this application must therefore be rejected.

Very respectfully,

C. SCHURZ, *Secretary.*

The provisions of the act of April 21, 1876, apply to the Iowa railroad grants. In every case arising under this act the Interior Department must be governed by the facts. It is not the duty of this department to pass upon the constitutionality of this law and its effects on what are claimed to be vested rights.

DEPARTMENT OF THE INTERIOR,
Washington, January 30, 1878.

SIR: I have considered the case of the Cedar Rapids and Missouri River Railroad Company *vs.* Gurdon Colton, involving the N. W. $\frac{1}{4}$ of section 18, township 85, range 43 west, formerly Council Bluffs, now Des Moines land district, Iowa.

This tract is within the six-mile limits of the route as established under the act of May 15, 1856, and outside of the twenty-mile limits of the road as constructed under the act of June 2, 1864.

Colton made homestead entry for the tract September 13, 1870.

Under date of March 27, 1877, you held that the entry was confirmed under the first section of the act of April 21, 1876. An appeal from this decision has been taken by the company. Elaborate arguments have been filed by counsel on each side, in which the provisions of the acts of May 15, 1856, and June 2, 1864, are discussed. This case comes before me under the first section of the act of April 21, 1876, which provides "that all pre-emption and homestead entries in compliance with any law of the United States, of the public lands, made in good faith by actual settlers, upon tracts of land of not more than one hundred and sixty acres each, within the limits of any land grant, prior to the time when notice of the withdrawal of the lands embraced in such grant was received at the local land office of the district in which such lands are situated, or after their restoration to market by order of the General Land Office, and where the pre-emption and homestead laws have been complied with and proper proofs thereof have been made by the parties holding such tracts or parcels, they shall be confirmed and patents for the same shall issue to the parties entitled thereto."

The facts in the case are as follows: The tract was withdrawn from entry for the purpose of adjusting the railroad grant, by letters from your office dated June 16, 1864, and June 7, 1865. It was restored to entry by order of the General Land Office November 1, 1867.

Under this restoration Mr. Colton made his entry.

Counsel for appellants urge that this tract inured to the grant to said company June 2, 1864; that it therefore could not be legally restored, and that any action by the land department, attempting such restoration, was illegal and void. They also urge that the provisions of the act of 1876 are not applicable to the Iowa land grants. I am unable to arrive at such a conclusion. The act is not limited to particular grants, but is general in its nature. It provides that where entries have been made in compliance with any law of the United States, in good faith by actual settlers, on the public lands within the limits of any land grant, prior to the receipt of the notice of withdrawal at the local office, "or after their restoration to market by order of the General Land Office," and where the law has been complied with, the entries shall be confirmed.

This department must be governed by the facts. At the time Colton made his entry the tract was "public land," within the meaning of the statute. If there was any doubt on this point, I should be governed by the opinion of the Attorney General, dated August 4, 1876, in which he says: "The question is *not* whether lands in that situation are *in general* public lands, but whether, from the context and other means of interpreting the above statute, it appears that Congress there intended by the phrase 'public lands' to designate the lands so situated. I think it plain that Congress, in the above act, used that phrase in a *special sense*, virtually being lands within the limits of any land grant prior to the time when notice of withdrawal is received at the local land office," &c.

No argument can obliterate the fact that the land was reserved from homestead and pre-emption entry by the Land Department, under orders dated June 16, 1864, and

June 7, 1865; neither can any argument do away with the fact that the land was restored to entry by order of the General Land Office. The records establish these facts beyond a doubt. I am not called upon at this time to determine the question whether your predecessor had the authority to thus restore the lands, or what the effect of his action was. I cannot be oblivious to the condition of affairs that resulted in the passage of the act under which it is asserted that the entry in question is confirmed. The arguments which were urged in favor of the measure are well known. This department, however, must be governed by the act itself. In my opinion it is susceptible of a reasonable construction, and I do not think it will be seriously contended that it is my duty to usurp the prerogative of the judicial branch of the government and determine the question of the constitutionality of the law and its effect upon what are claimed to be vested rights. As before stated, the tract entered by Colton was public land within the meaning of the statute, the entry was made in compliance with a law of the United States upon land restored to market by order of the General Land Office, and appears to have been made in good faith by an actual settler, who has submitted proof of his compliance with the law.

Your decision is therefore affirmed, and the papers transmitted with your letter of August 18, 1877, are herewith returned.

Very respectfully,

C. SCHURZ, *Secretary.*

Although a grant of lands was made to the company by the act of July 27, 1866, the lands upon which it would operate were not identified until the date of the passage of the joint resolution of June 28, 1870, authorizing the company to construct its road upon the line designated on the map filed in the Interior Department January 3, 1867, and that the rights of all parties who were actual settlers June 28, 1870, were saved.

Qualified settlers prior to June 28, 1870, may be allowed to make entry under the homestead law, but such entries must date from the date of application, and the claimant must comply with the provisions of law from such date.

DEPARTMENT OF THE INTERIOR,

Washington, August 2, 1878.

SIR: I have considered the case of Samuel Tome *et al.*, involving the right to enter lands in the Visalia land district, California.

The lands for which applications are made are within the limits of the grant to the Southern Pacific Railroad Company, made by the act approved July 27, 1866, and are embraced within limits of the withdrawal of March 22, 1867, which withdrawal was based upon the maps of the line of road filed by the company in this department January 3, 1867.

The homestead applications were made October 4 and 17, 1876, and the pre-emption filings were tendered October 11, 1876, alleging settlement July 18, 1876, except in the case of Samuel Doyle, who alleges settlement October 1, 1871.

The local officers rejected all the applications for the reason that the lands were embraced within the limits of the withdrawal for the company.

You approved this action, which was in accordance with the decision of my predecessor, Mr. Secretary Delano, dated April 23, 1875, in the case of Alfred Queen, wherein it was held that the grant became effective at the date of filing the map of the line of road, viz, January 3, 1867.

In view of the conflicting decisions of this department relative to the question of the grant to said company, I submitted a statement of the facts to the Attorney General in connection with certain questions. In his reply, a copy of which I herewith transmit, it will be observed that he is of the opinion that, although a grant of lands was made to the company by the act of July 27, 1866, the lands upon which it would operate were not identified until the date of the passage of the joint resolution of June 28, 1870, authorizing the company to construct its road upon the line designated on the map filed in this department, January 3, 1867, and that the rights of all parties who were actual settlers at that date were saved. I concur in this opinion.

In the future adjudication of cases it becomes necessary to ascertain what effect is to be given to the joint resolution above mentioned, which reads as follows: "That the Southern Pacific Railroad Company of California may construct its road and telegraph line, as near as may be, on the route indicated by the map filed by said company in the Department of the Interior on the third day of January, eighteen hundred and sixty-seven; and upon the construction of each section of said road, in the manner and within the time provided by law, and notice thereof being given by the company to the Secretary of the Interior, he shall direct an examination of each such section by commissioners to be appointed by the President, as provided in the act making a grant of land to said company, approved July twenty-seventh, eighteen hundred and sixty-six, and upon the report of the commissioners to the Secretary of the Interior that such section of said railroad and telegraph line has been constructed as required by law, it shall be the duty of the said Secretary of the Interior to cause patents to be issued to said company for the sections of land conterminous to each constructed section reported on as aforesaid, to the extent and amount granted to said

company by the said act of July twenty-seven, eighteen hundred and sixty-six, expressly saving and reserving all the rights of actual settlers, together with the other conditions and restrictions provided for in the third section of said act." (16 Stat., 382.)

It will be observed that when a section of road has been completed as required by law, it shall be the duty of the Secretary of the Interior to cause patents to be issued to the company for the sections of land coterminous to said constructed sections of road, "expressly saving and reserving all the rights of actual settlers, together with the other conditions and restrictions provided for in the third section of said act."

Among the conditions and restrictions contained in the said third section are the following: "That there be, and hereby is, granted * * * every alternate section of public land, not mineral, designated by odd numbers, to the amount of twenty alternate sections per mile, on each side of said railroad line, as said company may adopt, through the Territories of the United States, and ten alternate sections of land per mile on each side of said railroad whenever it passes through any State, and whenever, on the line thereof, the United States have full title, not reserved, sold, granted, or otherwise appropriated, and free from pre-emption or other claims or rights, at the time the line of said road is designated by a plat thereof, filed in the office of the Commissioner of the General Land Office; and whenever, prior to said time, any of said sections or parts of sections shall have been granted, sold, reserved, occupied by homestead settlers, or pre-empted, or otherwise disposed of, other lands shall be selected by said company in lieu thereof." * * *

While the joint resolution identifies the land upon which the grant was to operate, I am of the opinion that the conditions of the grant remain the same as provided in the original act, except that the rights of all actual settlers at the date of its passage are saved. In other words, the grant is to be adjusted in the same manner as though the filing of the map in this department on January 3, 1867, was an act authorized by law, except that the rights of persons who were actual settlers on the 28th of June, 1870, are to be protected. In my opinion, this is the only consistent interpretation that can be given to the joint resolution. Thereby settlers upon the public lands obtain their rights and the company receives the benefit of its grant.

It would be impossible to adjust the grant under the provision of the joint resolution without reference to the terms of the original act, and in my opinion all the provisions of the original act should be followed, as there is nothing in the terms of the joint resolution to indicate a variation in the conditions of the same, except so far as the protection of the rights of actual settlers is involved.

Cases which may arise in the future should be adjudicated in accordance with these principles, and the applications of parties who were actual settlers prior to June 28, 1870, and who were duly qualified to make entries of public lands under the laws of the United States, should be received and determined upon their merits.

In the case under consideration, settlement is not alleged by the respective claimants until after the date of the passage of the joint resolution of June 28, 1870, and the applications must be rejected.

Should it appear, however, that any of the parties who apply to make homestead entries, were actual settlers at the date above mentioned, or that the land was covered by a valid claim at the date of filing the map, any subsequent application alleging such settlement or reservation, should be determined upon its merits. In this connection I will state, that, as no right under the homestead law can be initiated prior to date of entry, and as no homestead entry could be made by reason of the withdrawal, technically no one could obtain any right under the homestead law to lands within the limits of said withdrawal. In view of the proviso, however, to the joint resolution, saving the rights of all actual settlers, I am of the opinion that said settlers should be allowed to enter the lands under the homestead law; the entries, however, must date from the date of application, and the claimants must comply with the provision of the law from said date.

The papers transmitted with your letter of October 4, 1877, are herewith returned.

Very respectfully,

C. SCHURZ, *Secretary.*

A party who made settlement upon the lands involved in the foregoing case prior to the passage of the joint resolution of June 28, 1870, is protected in his right thereby.

DEPARTMENT OF THE INTERIOR,
Washington, August 2, 1878.

SIR: I have considered the case of James A. Coughran *vs.* the Southern Pacific Railroad Company, involving the right to the N. W. of S. W. $\frac{1}{4}$ of section 9 and N. E. of N. E. $\frac{1}{4}$ of section 17, township 16 south, range 26 east, Visalia, Cal., on appeal from your decision of June 11, 1877.

It appears from the record that Coughran filed declaratory statement for the land in question, together with the E. $\frac{1}{2}$ of S. E. $\frac{1}{4}$ of section 8, same township and range, February 6, 1871, alleging settlement February 10, 1867.

Your office, under date of April 23, 1874, rejected his claim to the land in the odd numbered sections, but awarded him the tract in the even numbered sections. This decision was affirmed by my predecessor January 27, 1875, and Coughran made entry for the land in section 8, August 24, 1875.

Coughran was an actual settler upon the land at the date of the passage of the joint resolution June 28, 1870, and, under the provisions of said resolution, should have been permitted to enter the same. (See my decision of this date in the case of Samuel Tome et al.)

You are hereby instructed to allow Mr. Coughran to make entry for the said N. W. 1/4 of S. W. 1/4 of section 9 and the N. E. 1/4 of section 17, township 16 south, range 26 east.

The papers transmitted with your letter of October 11, 1877, are herewith returned.

Very respectfully,
C. SCHURZ, Secretary.

Under the later decision the entry of Stainbrook would have been erroneous. Where the tract in question was covered by a homestead claim at the date of withdrawal for railroad purposes, and a subsequent entry was permitted under the Boyd ruling, such subsequent entry is confirmed by the act of April 21, 1876, a compliance with the homestead law being shown. An unimpeached homestead entry will be considered valid until canceled.

DEPARTMENT OF THE INTERIOR,

Washington, August 14, 1878.

SIR: I have considered the appeal of Andrew J. Stainbrook, from your decision of November 19, 1877, refusing to reinstate his homestead entry on the S. W. 1/4 of section 33, township 19, range 8 east, Salina, Kans.

This tract is within the limits of the grant for the Atchison, Topeka and Santa Fe Railroad, the definite location of which was made June 30, 1869, and the notice of withdrawal was received at the local office November 3, 1869.

The entry was made November 21, 1871, and canceled for conflict with the railroad grant, September 24, 1873.

The evidence shows that Stainbrook complied with the terms of the homestead law from date of entry until August, 1874. This, together with the time for which he should receive credit for military service would constitute the five years' residence required by law, and he makes application for the reinstatement of his entry under the provision of the act of April 21, 1876, the second section of which confirms entries made under the decisions and rulings of the Land Department upon lands covered at the date of withdrawal by valid homestead or pre-emption claims.

The records show that the tract in question was covered by the homestead entry of John W. Randall, made October 21, 1863. He abandoned the land in 1868, and his entry was canceled October 12, 1871, and on the 21st of the following month the tract was entered by Stainbrook. In your letter rejecting the application you state that by the decision of the honorable Secretary of the Interior, of April 28, 1871, in the case of Boyd vs. Burlington and Missouri Railroad Company, it was held that if a homestead entry was valid and subsisting at the date of definite location, and subsequently abandoned, the tract covered thereby was excepted from the grant and became again subject to entry.

The proof on which Randall's claim was canceled showed that he abandoned long prior to the date of the attachment of the right of the company; hence Stainbrook's entry was allowed in direct opposition to the rule laid down in the "Boyd decision."

Under this decision two points are presented for consideration: First, what is the correct interpretation of the phrase "under the decisions and rulings of the Land Department," as it is used in the section of the act of April 21, 1876; and, second, what was the rule established by the "Boyd" decision?

It is well known that various rulings have been in force in the Land Department at different times relative to the effect of a claim, either under the pre-emption or homestead law, to lands within the limits of a railroad grant at the date of the definite location of the road, or at the date of withdrawal for railroad purposes. Entries which were allowed under one ruling were canceled under a subsequent and different ruling. It was to remedy the effects of this evil that the act of April 21, 1876, was passed, and the same should receive a reasonable and just construction. I am of the opinion that under the provisions of this act all entries made either in pursuance of special instructions, or in accordance with the rulings in force at the date of said entries, are confirmed.

In the case of Boyd vs. The Burlington and Missouri River Railroad Company, decided April 28, 1871, my predecessor held that a homestead claim at the date of definite location of the road, excepted the land covered thereby from the operation of the grant. His language on this point is, "If the homestead claim has attached at the time the line of the road is definitely located, then the railroad is excluded. It would seem to be immaterial what became of the claim after that, whether it was perfected or abandoned."

There can be no doubt about the interpretation which should be given to this lan-

guage. It is held that if a homestead claim attached to the land at the date of definite location, it was excepted from the operation of the grant. It has been held by the Land Department since the date of the passage of the homestead law that a homestead claim attached by means of an entry. It did not necessarily follow, however, that said claim was a valid one. It will be observed that the language in the Boyd decision was not qualified; it was expressly stated that a *homestead claim* to the land at the date of definite location of the road excepted the tract covered thereby from the operation of the grant. The interpretation given to the decision was in accordance with this theory, and many entries were allowed thereunder.

About one year subsequent, viz, under date of May 1, 1872, in the case of the Atchison, Topeka and Santa Fé Railroad Company *vs.* Catlin and Frank, my predecessor held that a homestead claim in order to except the tract embraced thereby must have been valid and *subsisting*, or, in other words, one capable of being perfected at the date of the definite location of the road.

Under the later decision the entry of Stainbrook would have been erroneous, as Randall, the former homestead claimant, had abandoned the land prior to the date of the definite location of the road, but the entry was properly allowed under the ruling in force from the date of the decision in the Boyd case, viz, April 28, 1871, to the date of the decision in the Catlin and Frank case, viz, May 1, 1872.

In subdivision four of the circular issued by your office August 15, 1872, subsequent to the decision in the last-mentioned case, in which the rule announced in the Boyd decision was modified, giving instructions relative to hearings in connection with the adjustment of railroad grants, it is expressly stated that "when by direction of this office under its interpretation of the rulings of the department, second entries or filings have been allowed within railroad limits upon lands previously covered by homesteads or pre-emptions after the cancellation of the same, such second entries or pre-emptions will not be affected by this modification of previous decisions." * * * This circular clearly recognizes the fact that under former rulings entries had been permitted upon lands once covered by homestead or pre-emption claims, and as a matter of fact the entries allowed under the Boyd decision were thus specified.

As the tract in question was covered by a homestead claim at the date of withdrawal for railroad purposes, and as the entry of Stainbrook was permitted under the ruling of the Land Department, established by the Boyd decision, and as he has shown a compliance with the law, I am of the opinion that his entry is confirmed under the provisions of the act of April 21, 1876, and therefore reverse your decision and direct that the entry of Stainbrook be reinstated.

The tract in question was covered by a homestead entry, valid at its inception, and uncanceled at the time the grant became effective; hence, under the ruling established by my predecessor in the case of Chalkley Thomas, the same would have been excepted from the operation of said grant and subject to appropriation by Stainbrook. His entry was canceled, however, under a ruling of the Land Department in force at the date of adjudication, and on that point must be considered *res judicata*, and if the application had been based upon that ground it must have been rejected. The application, however, was made under the provisions of the act of April 21, 1876, and was based upon the ground of an entry allowed under the rulings of the Land Department, and has been adjudicated in accordance therewith.

In the adjudication of applications under the act above mentioned the rule established in the Thomas case, viz, that an unimpeached homestead entry will be considered valid until canceled, will be followed.

The papers transmitted with your letter of March 2d last are herewith returned.

Very respectfully,

C. SCHURZ, *Secretary.*

Notwithstanding the fact that *at the time of the grant and withdrawal* for this railroad company the title of certain Indians to lands granted to the company had not been extinguished, yet as the Indian title was extinguished at the date of the *definite location* of the road, the grant and withdrawal became operative and the lands inured to the road.

The ruling being based upon the last clause of the second section of the granting act, to wit: "The United States shall extinguish as rapidly as may be consistent with public policy and the welfare of said Indians the Indian titles to all lands *falling under the operation of this act, and acquired in the donation to the road named in this bill.*"

A party who made a settlement in violation of law acquired no right in the land before the extinguishment of the Indian right of occupancy. And the withdrawal for the company prevented the acquiring of such right after its extinguishment.

DEPARTMENT OF THE INTERIOR,

Washington, August 14, 1878.

SIR: I have considered the case of Hans S. Hogland *vs.* The Northern Pacific Railroad Company, involving the fractional N. W. $\frac{1}{4}$ of section 19, township 140 north, range 49 west, Fargo land district, Dakota Territory, on appeal from your decision of February 8, 1877, adverse to the claim of said company.

The land in question is within the limits of the tract of country formerly claimed by the Wahpeton and Sisseton bands of Sioux Indians as their possession; it is also

within the forty mile limits of the grant of July 2, 1864 (13 Stat., p. 365), to aid in the construction of a railroad and telegraph line from Lake Superior to Puget's Sound on the Pacific Coast by the northern route, and is claimed by said company under its grant.

The plat of the survey of said township was filed in the local land office July 25, 1873. The withdrawal of lands for said road embracing the tract in question took effect February 21, 1872, and the line of said road was definitely located May 26, 1873, opposite said tract.

At the time of the withdrawal it is claimed that the Indian title to those lands had not been extinguished, that said title was not extinguished until May 19, 1873, seven days before the right of the company attached, and that said lands did not therefore inure to the grant.

Hogland settled on this tract in 1871, built a small house thereon, and planted some potatoes; the next year he built a larger house, a stable, and made other improvements. He continued to reside on the land until the spring of 1875, when he moved his buildings on an adjoining tract (section 18), and lived thereon until the spring of 1876, when he moved the small house back on the tract in dispute, which he has since claimed under the provisions of the pre-emption law.

On August 25, 1873, one month after the township plat was filed, Hogland made application to file a declaratory statement for the tract in question, but his application was refused by the local officers, and no appeal was taken from their decision. On March 28, 1876, the register transmitted Hogland's original declaratory statement to your office, and on the 18th of April following you authorized the local officers to allow him to file for said tract, and he accordingly filed declaratory statement 1075 for the same, May 4, 1876, alleging settlement April 18, 1871. After his filing was refused in 1873, Hogland appears to have recognized the right of the company to the land, and to have entered into negotiations with its officers to purchase it of the company, but failed to complete the purchase, owing to his inability to pay for the same.

In order to correctly understand the status of this tract and others similarly situated, and to determine the rights of the respective parties to the tract in question, it will be necessary to inquire into the character of the Indian title to it, and the manner in which the same has been recognized and treated by the United States.

The whole tract, of which the one in question forms a part, was included in the Louisiana purchase, ceded to the United States by France, by the treaty of Paris, on April 30, 1803. No specific reservation of it for Indian purposes appears to have been made by foreign sovereignties previous to that time, and none was recognized by that treaty.

As a matter of law, therefore, the fee-simple title was vested in the government by virtue of said treaty, although it was then occupied by the Indians, and that fact was well known at the time to both governments.

The first authoritative declaration or admission on the part of our government of any Indian claim or title thereto is found in the act of Congress approved June 30, 1834, the first section of which reads as follows:

"That all that part of the United States west of the Mississippi, and not within the States of Missouri and Louisiana, or the Territory of Arkansas, and also that part of the United States east of the Mississippi River, and not within any State, to which the Indian title has not been extinguished, for the purposes of this act, be taken and deemed to be the Indian country." (4 Stats., 729.)

The second article of the treaty between the United States and Sisseton and Wahpeton bands of Dakota or Sioux Indians, proclaimed May 2, 1867 (in which the claim of these bands of Indians was clearly recognized by the government, and the right to construct wagon-roads, railroads, mail-stations, and telegraph lines through the Indian country, was granted to the United States), reads as follows:

"ARTICLE II. The said bands hereby cede to the United States the right to construct wagon-roads, railroads, mail-stations, telegraph lines, and such other public improvements as the interest of the government may require, over and across the lands claimed by said bands, including their reservation (as hereinafter designated), over any route or routes that may be selected by the authority of the government; said lands so claimed being bounded on the south and east by the treaty line of 1851, and the Red River of the North to the mouth of Goose River; on the north by the Goose River, and a line running from the source thereof by the most westerly point of Devil's Lake to the Chief's Bluff at the head of James River, and on the west by the James River to the mouth of Mocasín River, and thence to Kampeska Lake."

The third and fourth articles set apart as permanent reservations two small tracts within the limits above mentioned, and by the ninth article it was stipulated as follows:

"And it is further agreed that no person not a member of said bands, parties hereto, whether white, mixed blood, or Indian, except persons in the employ of the government or located under its authority, shall be permitted to locate upon said lands, either for hunting, trapping, or agricultural purposes."—(Revision of Indian Treaties, p. 909.)

From the above quotations from said treaty, it will be seen that the government not only recognized the Indian title or right of occupancy to said lands as an existing right, but it also agreed that the lands should not be subject to agricultural settlement by any person not a member of said bands.

The stipulations in said treaty leave no doubt that the Indians had a lawful right of occupancy of said lands, although there had never been any specific reservation of the same for their use, nor any general recognition of such right beyond that contained in the first section of the act of June 30, 1834, before recited.

By an act of Congress approved June 7, 1872 (17 Stat., p. 281), it was made the duty of the Secretary of the Interior "to examine and report to Congress what title or interest the Sisseton and Wahpeton bands of Sioux have to any portion of the land mentioned and particularly described in the second article of said treaty of May 2, 1867, or by virtue of any other law or treaty whatsoever, excepting such rights as were secured to said bands of Indians respectively, for the extinguishment of whatever title they may have to said lands." In accordance with the provisions of this act, the Secretary of the Interior appointed a board of commissioners, who visited the Indian country, and reported October 3, 1872, that said bands had the right of occupancy to the tract hereinbefore described, at the time the treaty of 1867 was concluded, and submitted an agreement signed by the commissioners and the chiefs and head men of said bands, stipulating that the Indians "cede, sell, and relinquish to the United States all their right, title, and interest in and to all lands and territory particularly described in article 2 of said treaty, as well as all lands in the Territory of Dakota, to which they have title or interest," except the permanent reservations, and "that in consideration of said cession and relinquishment the United States shall advance and pay annually for the term of ten years, from and after the acceptance by the United States of the proposition herein submitted, eighty thousand dollars."—(Report of Commissioner of Indian Affairs for 1872, pp. 118, 120, 123.)

This agreement was ratified by act of Congress, approved February 14, 1873 (17 Stat., p. 456), with amendments. An appropriation was also made of the first installment of \$80,000, and it was provided, "That no part of this amount shall be expended until after the ratification by said Indians of said agreement, as hereby amended."

The agreement, as amended by Congress, was signed by the Indians at the Sisseton agency, Lake Traverse Reservation, May 2, 1873, and by the Indians at the Fort Totten Agency, Devil's Lake Reservation, May 19, 1873.

I therefore agree with your conclusion that the Indian title was not extinguished until May 19, 1873.

The Indian title to the tract in question not having been extinguished until after the grant to said company was made, the question necessarily arises, did said tract pass to said company by virtue of its grant? You held that it did not, and from your decision the company has appealed to this department.

The grant to said company is in the following words, viz: "*And be it further enacted, That there be and hereby is granted to the 'Northern Pacific Railroad Company,' their successors and assigns, for the purpose of aiding in the construction of said railroad and telegraph to the Pacific coast, and to secure the safe and speedy transportation of the mails, troops, munitions of war, and public stores, over the route of said line of railway, every alternate section of public land, not mineral, designated by odd numbers, to the amount of twenty alternate sections per mile, on each side of said railroad line, as said company may adopt, through the Territories of the United States, and ten alternate sections of land per mile on each side of said railroad whenever it passes through any State, and wherever on the line thereof the United States have full title, not reserved, sold, granted, or otherwise appropriated, and free from pre-emption or other claims or rights, at the time the line of said road is definitely fixed, and a plat thereof filed in the office of the Commissioner of the General Land Office; and whenever, prior to said time, any of said sections or parts of sections shall have been granted, sold, reserved, occupied by homestead settlers, or pre-empted or otherwise disposed of, other lands shall be selected by said company in lieu thereof, under the direction of the Secretary of the Interior, in alternate sections, and designated by odd numbers, not more than ten miles beyond the limits of said alternate sections.*"—(13 Stat., pp. 367-368.)

As before stated, the line of the road was definitely fixed opposite the tract in question May 26, 1873, as required by the granting act.

The rule to be observed in the construction of grants of the character of the one now under consideration is stated as follows by the supreme court in the case of *The Leavenworth, Lawrence and Galveston Railroad Company vs. The United States*:

"This grant, like that of Iowa, was made for the purpose of aiding a work of internal improvement, and does not extend beyond the intent it expresses. It should be neither enlarged by ingenious reasoning, nor diminished by strained construction. The interpretation must be reasonable, such as will give effect to the intention of Congress. This is to be ascertained from the terms employed, the situation of the parties, and the nature of the grant. If these terms are plain and unambiguous, there

can be no difficulty in interpreting them; but if they admit of different meanings—one of extension and the other of limitation—they must be accepted in a sense favorable to the grantor. And if rights claimed under the government be set up against it, they must be so clearly defined that there can be no question of the purpose of Congress to confer them. In other words, what is not given expressly or by necessary implication, is withheld. (2 Otto, 740, citing *Dubuque and Pacific Railroad Company vs. Litchfield*, 23 Howard, 66; *Rice vs. Railroad Company*, 1 Black, 380; *Charles River Bridge vs. Warren Bridge*, 11 Peters, 120.)

It is also a well settled rule to be observed in the construction of statutes that “a thing which is within the letter of a statute is not within the statute, unless it be within the intention of the makers; and a thing which is within the intention of the makers of a statute is as much within the statute as if it were within the letter.” (9 Bac. Abr., 247.)

Unless the intention of Congress, therefore, to grant lands to said company to which the Indian title attached at the time of making said grant be clearly manifest, on condition that said title was extinguished at the time of the definite location of its road, it must be held that the tract in question did not pass to said company; on the other hand, if such intention is clearly expressed in the grant, then it must be held that the title thereto did so pass.

For the purpose of ascertaining whether such intention is clearly expressed, resort must be had to the act itself. In connection with the condition of the title of the lands through which it was contemplated the line of road would run at the time this grant was made, it must be remembered that a considerable portion of the lands falling within the limits of the grant upon the line of road as projected, were claimed and inhabited by wild and uncivilized bands of Indians, who had held them since the discovery of this continent by force of arms and the traditions of their tribes.

The title which the Indians had in the lands, however, was the right of occupancy only, although as sacred to them as that of the United States to the fee. This right the government was bound to protect until the Indians should voluntarily cede it to the United States, in whom alone the right of purchase was vested. (*Cherokee Nation vs. Georgia*, 5 Peters, 1; *United States vs. Cook*, 19 Wallace, 591; *Johnson vs. MacIntosh*, 8 Wheaton, 574.) On the other hand, a work of national importance was to be undertaken far beyond the resources of private individuals, an enterprise which was deemed worthy of national support on account of the great advantages to be derived therefrom, and the large tract of country to be opened to settlement and civilized habitation. These facts seem to have been recognized by Congress, and we therefore find that provision was made in the act for the extinguishment of such Indian title.

The last clause of the second section of said act reads as follows: “The United States shall extinguish as rapidly as may be consistent with public policy and the welfare of said Indians the Indian titles to all lands falling under the operation of this act and acquired in the donation to the road named in this bill.”

This clause, I think, should be read and construed in connection with the third section, containing the grant to said company, and when so read and construed, it clearly indicates the intention of Congress to grant to said company any and all lands falling under the operation of said grant to which the Indian title had been extinguished at the time the line of the road was definitely fixed. The act must be so construed as to give force and effect to each and every part thereof, if possible; and if the tract in question was excepted from the grant by reason of the Indian title thereto at the date of said act, and was not to be acquired in the donation to said company (if the Indian title thereto was extinguished at the time of the definite location of said road), then from what lands were the Indian titles to be extinguished for the benefit of said road, as indicated in this provision? Certainly not from those in the permanent reservations, through which the right of way only was granted, for the language is, “falling under the operation of this act and acquired in the donation to the road named in this bill.”

In view of all the circumstances, I am unable to conclude that this clause was intended as mere surplusage. The government had the right to contract for the extinguishment of the Indian right of occupancy on such terms and conditions and for such considerations as it might deem just and proper.

That Congress did stipulate for the removal of the Indian title to any and all lands through which this line of road might pass, upon the conditions named, I think cannot be doubted; neither do I doubt that it was the intention of Congress, from the language used, that the title to the lands embraced within the limits of the Indian reservations, through which it was anticipated the line of said road would run, should pass to said company in the same manner as elsewhere on its route, provided the Indian title thereto was extinguished at the time the line of the road was definitely fixed and a map thereof filed in the General Land Office.

In this view I am confirmed by the language used by the Supreme Court in the case

above cited. In that case the court, in referring to the language employed by Congress in another act, said:

"If Congress had intended to extinguish the Osage title, for the benefit of the appellant, *it would have spoken directly, as it did in the Pacific Railroad act*, and not in an indirect way near the end of one of the general appropriation bills. The Congress that made this grant made one eight months before to aid in the construction of a railroad from the Missouri River to the Pacific Ocean and of other roads connected therewith, *in which it agreed to extinguish as rapidly as possible the Indian title for the benefit of the companies*. This was necessary, although their roads ran through territory occupied by wild tribes; but this passed through a reservation secured by treaty and occupied by Indians at least partially civilized. A transfer of any part of it would be wrong, and as the act does not mention it, there is no reason to suppose that Congress, in making the grant, contemplated the extinction of the Indian title at all."

The language of the act referred to is as follows: "The United States shall extinguish as rapidly as may be the Indian title to all lands falling under the operation of this act and required for the said right of way and grants hereinafter made." (Last clause, second section, act of Congress approved July 1, 1862, 12 Stat., p. 489.)

This stipulation, while it is not in the exact language of the one contained in the second section of the act under consideration, has the same meaning and legal effect.

As the Indian title to this tract had been extinguished prior to the definite location of the road, I am of the opinion that it passed under the grant to said company, unless Hogland's right thereto had so attached as to except it therefrom.

The language of the grant is clear and explicit, "That there be, and hereby is, granted to the Northern Pacific Railroad Company * * * every alternate section of public land not mineral" within the limits named, "whenever on the line thereof the United States have full title, not reserved, sold, granted, or otherwise appropriated, and free from pre-emption or other claims or rights at the time the line of said road is definitely fixed," &c.

The withdrawal took effect February 21, 1872, and the Indian title was extinguished May 19, 1873. In the case of Francis Piron to *vs.* said company, decided by my predecessor on September 19, 1874, and involving some of these same Indian lands, it was held that the withdrawal took effect upon said lands immediately upon the extinguishment of the Indian title.

The fee to the tract in question, as well as other lands similarly situated, being in the United States, Congress had the right to grant it to said company on such terms and conditions as it deemed necessary to impose, saving and reserving the Indians in their right of occupancy so long as that right existed. The company, when it accepted the grant, acquired the title which the United States had in the lands, subject to the conditions named in the grant, encumbered with the Indian right of occupancy. This right having been extinguished before the definite location of the road, the lands immediately became subject to the full operation of the grant, like other public lands. (Clark *vs.* Smith, 13 Peters, 195, and cases cited.) In other words, the company by the grant acquired a title to the lands in question, subject to all the conditions named therein. One of these conditions is, that the lands must be free and clear of all adverse claims and rights at the date of the definite location of the road. The Indian right of occupancy having been extinguished before such definite location, it ceased to be an adverse claim which would defeat the grant to the company of the lands theretofore encumbered by it.

Did the settlement and residence of Hogland on the tract in question constitute such an adverse claim thereto as will defeat the right of the company?

The record shows that Hogland settled upon the tract claimed by him in violation of law and treaty stipulations. It was not until more than two years after his settlement that any of the lands released by the treaty or agreement of May 19, 1873, became subject to sale or disposal by the United States. Between the date of Hogland's alleged settlement and the time when the government had the right to sell and dispose of any of said lands, viz, February 21, 1872, the withdrawal of said lands for the road, embracing the tract on which Hogland settled, was made, including all the odd sections of land within the limits prescribed by the granting act.

This withdrawal was made by virtue of the sixth section of said act, which reads as follows:

"SEC. 6. *And be it further enacted*, That the President of the United States shall cause the lands to be surveyed for forty miles in width on both sides of the entire line of said road after the general route shall be fixed, and as fast as may be required by the construction of said railroad; and the odd sections of land hereby granted shall not be liable to sale or entry or pre-emption before or after they are surveyed, except by said company, as provided in this act; but the provisions of the act of September, eighteen hundred and forty-one, granting pre-emption rights, and the acts amendatory thereof, and of the act entitled 'An act to secure homesteads to actual settlers on the public domain,' approved May 20, eighteen hundred and sixty-two, shall be, and the

same are hereby, extended to all other lands on the line of said road, when surveyed, excepting those hereby granted to said company. And the reserved alternate sections shall not be sold by the government at a price less than two dollars and fifty cents per acre when offered for sale."

The company having the right to acquire the full title to said lands upon performing all the conditions required in the granting act in the event that the Indian title should be extinguished before the definite location of its road, the withdrawal must be held to have operated upon said lands for the protection of that right the same as upon other lands.

Hogland, therefore, by a settlement made in violation of law, acquired no right in the land before the extinguishment of the Indian right of occupancy, and the withdrawal prevented the acquiring of such right after its extinguishment. His claim must therefore be rejected.

Your decision, for the reasons stated, is reversed; and the papers transmitted with your letter of April, 1877, are herewith returned.

Very respectfully,

C. SCHURZ, *Secretary.*

Decision in case of Nelson Dudymott, touching the disposal of lands coming within the last clause of the third section of the act of Congress approved July 1, 1862.

DEPARTMENT OF THE INTERIOR,
Washington, July 23, 1878.

SIR: I have considered the appeal of Nelson Dudymott, by his attorney, M. Mullins, esq., from your decision of October 12, 1877, approving the action of the local officers in rejecting the application of said Dudymott to file a declaratory statement upon the N. $\frac{1}{2}$ N. E. $\frac{1}{4}$ lot No. 7, and S. W. $\frac{1}{4}$ of N. E. $\frac{1}{4}$ of section 7, township 11 S., range 5 E., Salina land district, Kansas, for the reason that the land applied for is within the limits of the grant to the Kansas Pacific Railroad Company.

Mr. Dudymott claims the right to pre-empt said tract of land under the provisions of an act of Congress approved September 4, 1841, and the last clause of the third section of an act of Congress approved July 1, 1862.

The reasons assigned in your decision for approving the action of the local officers are stated as follows:

"On February 21, 1873, this office, in a letter to the register and receiver at Cheyenne, Wyoming Territory, in the matter of an application by Henry Garbanatti to enter certain lands under the proviso in question, said: 'In my letter to you of the 21st of June last, * * * I stated that the third section of the act of July 1, 1862 (12 Stat., p. 492), provides that the lands inuring to said company within the granted limits which shall remain undisposed of by said company at the expiration of three years from the final completion of the road shall be sold by said company to settlers by pre-emption at \$1.25 per acre. I will now state, in addition, that the law does not provide for the enforcement of said proviso by this office, and should this office attempt to dispose of the lands in question, all moneys so received, in accordance with existing laws, will have to be turned into the United States Treasury, and it would require a special act of Congress to withdraw the same and pay it to the railroad company. Nor are the usual fees allowed to the district land officers in acting on pre-emption cases provided for in the act. In my opinion, therefore, said proviso is a condition running with the grant, and entirely beyond the jurisdiction of this office. I accordingly approve your action in rejecting Mr. Garbanatti's application.'"

You further state that—

"An appeal having been taken from the above decision, the Acting Secretary of the Interior, Mr. Cowen, on September 15, 1873, affirmed the rejection of the application for other reasons appearing in the case, but declined to pass upon the question raised under the provisions of the third section 'until it is presented in a case where its decision becomes necessary.' * * * For the reasons stated in the decision of my predecessor, herein quoted, and in the absence of any decision by the courts or the department to the contrary, I decide that the matter of the disposition of lands in the condition of the tracts involved in the application in hand is not within the jurisdiction or control of this office."

From this decision, Mr. Dudymott, by his attorney, filed an appeal, alleging, among others, the following exceptions, viz:

"First. Because section 3 of the act of Congress of July 1, 1862, which gave alternate sections of land on each side of the road to the Kansas Pacific Railroad Company formerly the Leavenworth, Pawnee and Western Railroad Company, contained a provision that any of these lands not sold by said company within three years after the final completion of the road should be sold to actual settlers, under the pre-emption laws, at \$1.25 per acre, the money to be paid to the company.

"Second. Because said railroad was accepted by the Government as complete in

the latter part of the year 1872, or nearly five years ago; and, therefore, the land above described being a part of said grant, and still unsold by said company, is now and should have been, for nearly two years past, open to pre-emption settlement."

The third section of the act making the grant to aid in the construction of the road of which the Kansas Pacific Railroad Company is the successor reads as follows:

"SEC. 3. *And be it further enacted*, That there be, and is hereby, granted to the said company, for the purpose of aiding in the construction of said railroad and telegraph line, and to secure the safe and speedy transportation of the mails, troops, and munitions of war and public stores thereon, every alternate section of public lands designated by odd numbers, to the amount of five alternate sections per mile on each side of said railroad, on the line thereof, and within the limits of ten miles on each side of said road, not sold, reserved, or otherwise disposed of by the United States, and to which a pre-emption or homestead claim may not have attached at the time the line of said road is definitely fixed: *Provided*, That all mineral lands shall be excepted from the operations of this act; but where the same shall contain timber, the timber thereon is hereby granted to said company. And all such lands so granted by this section, which shall not be sold or disposed of by said company within three years after the entire road shall have been completed, shall be subject to settlement and pre-emption like other lands, at a price not exceeding one dollar and twenty-five cents per acre, to be paid to said company." (12 Stat., p. 489.)

By an act of Congress approved July 2, 1864, said grant was increased to ten sections per mile on each side of said road, and the limits within which the same were to be selected to twenty miles on each side thereof. (13 Stat., p. 356, section 4.)

The road was completed within the time limited in the grant, and the last section thereof accepted by the President October 19, 1872.

The proofs submitted do not show conclusively that Mr. Dudymott is a qualified pre-emptor, nor does it satisfactorily appear that the tracts described in his declaratory statement have not been sold by said company. He alleges that he is a qualified pre-emptor, and has presented affidavits showing that said tracts had not been sold by said company at the date he filed his application therefor as a pre-emptor. Considering him to be qualified as a pre-emptor, and the lands at that time to have been unsold by said company, the question is presented whether, under the last clause of said third section, his application should have been received, and, if full compliance with the pre-emption law, including payment for the tracts, were shown, a patent therefor should issue to him by the United States.

Nearly all of the grants made by the United States to aid in the construction of railroads and for other works of internal improvement have had annexed to them conditions, some of which are conditions precedent, and others conditions subsequent; such conditions are found in this grant. It cannot be denied that Congress had the right to make a grant to said company absolute and unconditional, but, in order to secure the objects for which this grant was made, conditions were annexed.

The company had the right to accept or reject the grant with the conditions therein made, but having accepted it, it is now estopped to deny their force and effect.

One of these conditions, and the one under which the applicant now claims the right to enter a portion of the land granted to said company, is that "all such lands so granted by this section, which shall not be sold or disposed of by said company within three years after the entire road shall have been completed, shall be subject to settlement and pre-emption like other lands, at a price not exceeding one dollar and twenty-five cents per acre, to be paid to said company."

The object of including this condition in the grant is apparent. Referring to the objects to be attained by this provision, the Supreme Court, in the case of the Railway Company *vs.* Prescott (16 Wallace, p. 609), said:

"It is wisely provided that these lands shall not be used by the company as a monopoly of indefinite duration. The policy of the government has been for years to encourage settlement on the public lands by the pioneers of emigration, and to this end it has passed many laws for their benefit. This policy not only favors the actual settler, but it is to the interest of those who by purchase own adjacent lands, that *all of it* shall be open to settlement and cultivation. Looking to this policy, and to the very large quantity of lands granted by this statute to a single corporation, Congress declared that if the company did not sell those lands within a time limited by the act, they should then, without further action of the company, or of Congress, be open to the actual settlers under the same laws which govern the right of pre-emption on government lands, and at the same price. Any one who has ever lived in a community where large bodies of lands are withheld from use or occupation, or from sale except at exorbitant prices, will recognize the value of this provision. It is made for the public good as well as for that of the actual settler. To permit these lands to pass under a title derived from the State for taxes would certainly defeat this intent of Congress. It makes no difference in the force of the principle, that the money paid by the settler

goes to the company. The lands which the act of Congress declares shall be open to pre-emption and sale are withdrawn from pre-emption and sale by a tax-title and possession under it, and it is no answer to say that the company which might have paid the taxes gets the price paid by the settler."

In a subsequent decision (*Railway Company vs. McShane*, 22 Wallace, p. 461), the Supreme Court, while holding that the grounds above set forth were untenable and not sufficient reasons on which to deny the right of the State to tax the land, if the company had, in other respects, fully complied with the law (and in that respect overruling its decision in the case above cited), said:

"The road was completed and accepted by the President in May, 1869, and those lands have been subject to such pre-emption since three years from that date, if this right can be exercised by the settler without further legislation by Congress or action by the Interior Department.

"We do not now propose to decide whether any such legislation or action is necessary, or whether any one, having the proper qualification, has the right to settle on these lands, and tendering to the company the dollar and a quarter per acre, enforce his demand for a title. It is not known that any such attempt has been made or ever will be, or that Congress or the department has taken or intends to take any steps to invite or aid the exercise of this right. It would seem that, if it exists, it would not be defeated by the issue of the patent to the company, and it may, therefore, remain the undefined and uncertain right, vested in no particular person or persons, which it now is, for an indefinite period of time."

While it is true that neither of said decisions clearly and distinctly defines the right of the government in the disposal of said lands, still they clearly indicate the opinion of the court that such a right exists, and whether it be considered that the estate granted is a conditional estate, or an estate with a conditional limitation, in either case I am of the opinion that it must be held that the condition runs with the grant, and is in effect a reservation of a power of sale in the government of the lands granted to the company which remained unsold by it at the expiration of three years after the entire road was completed under the provisions of the pre-emption law. It is manifest, I think, that Congress did not intend to grant to said company so large a quantity of land to be held and sold by it at speculative prices; but, desiring to give it aid and assistance in its undertaking, at the same time provided that the actual settler who was willing to pay the price stipulated should have the right to settle and make a home upon any of the lands so granted; and in order to secure this right to the settler, and at the same time secure to the company an adequate consideration for the lands, reserved the right of sale thereof after the road had been completed for three years.

This view is not inconsistent with the object to be attained in making the grant. That object was to aid a corporation in the construction of a work of national importance, which contemplated an expenditure of money beyond the resources of private individuals, and whether that aid should be given in lands which might be sold by the company to reimburse it for expenditures made or to be made, or whether the government should sell the lands at a stipulated price and pay the proceeds arising therefrom to said company, was considered immaterial both by the government and the company that accepted the grant with the condition.

The fact that said company so understood this grant is made evident by a circular issued by its land commissioner, dated May 12, 1873, inviting purchases of its lands, in which he says:

"The road was accepted by the government as complete about six months ago. In three years from that time the unsold lands will be subject, we suppose, to the pre-emption laws, but we hope and expect to have all our lands sold before that time arrives. All railroad lands sold by this company are sold clear of taxes, with assurance of perfect title when paid for."

More than three years having elapsed since the completion of said road and its acceptance by the President, at the time Mr. Dudymott filed his declaratory statement for the tracts in question, I am of the opinion that his application should have been received by the local officers, subject, however, to the condition that it be made to appear, before final certificate issue to him, that at the time his declaratory statement was filed for said tracts said company had not sold or disposed of the same.

In your decision it is held "that the matter of the disposition of lands in the condition of the tracts involved in the application in hand is not within the jurisdiction or control of this office." If the views I have expressed in relation to the sale and disposal of said lands are correct, and I see no reason to doubt their correctness, the sale and disposal of lands in the condition of those applied for, if unsold at that time by said company, is clearly within the jurisdiction of your office, "like other lands."

By the terms of the grant by which said lands, or the proceeds which shall arise from the sale thereof, inured to said company, it is provided that lands remaining unsold at the expiration of three years from the time when the entire road was completed,

shall be subject to settlement and pre-emption like other lands, at a price not exceeding \$1.25 per acre; in other words, that said lands shall revert to the public domain for sale and disposal for said company under the pre-emption laws of the United States. And whether it be considered that said lands are public lands in a general or special sense cannot, in my opinion, affect the jurisdiction of your office in making sale and disposal of the same.

At the time this grant was made the provisions of the pre-emption law were well understood, and in so far as said act provided that the lands granted shall be subject to settlement and pre-emption like other lands, it must be considered that Congress intended that the same rules and regulations should be adopted in relation to the disposal and sale of said lands as are adopted by your office in the sale of public lands under the pre-emption law. While it may be true that further legislation in relation to the sale of said lands might have been advisable, still I do not think it to have been absolutely necessary, except to provide for the manner in which the proceeds which shall arise from the sale of said lands shall be paid to said company.

Counsel for the company suggests that these lands are covered by a mortgage, executed by said company, to secure moneys borrowed in the construction of its road. If this be true, I am unable to perceive that said mortgage is any obstacle to the disposal of said lands in accordance with the provisions of the granting act.

The company mortgaged such interest in the lands as it possessed, and the mortgagees must be considered to have taken the mortgage with full knowledge of the right of the company to make the same. Aside from these considerations, however, the provision in the mortgage which authorizes the company to sell and dispose of the lands granted, and make conveyance thereof to purchasers, which conveyance shall release the right of the mortgagees to the particular tract, will in the same manner protect the pre-emptor who purchases of the government, which has authority to sell the lands and pay the proceeds arising from such sales to the company.

The local officers of each of the land districts in which lands inuring to said company by virtue of said grant are situated, should be instructed to receive filings conditionally for said lands in tracts not exceeding one quarter section, by qualified pre-emptors, and on receipt of such declaratory statements to call upon the company for a statement showing whether the lands applied for have been sold by it; and if not sold, then the declaratory statements should be allowed subject to the applicant's showing full compliance with the pre-emption law.

If the company neglects or refuses to furnish such statement to the local officers within thirty (30) days after service of said notice, in that case they should be instructed to order a hearing, if so requested by the applicant, to determine whether such tract or tracts are subject to such filing, giving notice of the time and place when and where such hearing will be held, in some newspaper published and circulated in the county where the lands are situated, notifying said company, and any and all persons, if such there be, claiming title to said tracts under it, to appear at the time and place mentioned to show cause why said declaratory statements should not be received.

At such hearing the applicant should be required to show that he is an actual settler on the land applied for, a qualified pre-emptor, and that the records of the county where deeds and conveyances are recorded do not show that said tracts had been sold at the date of the filing of his declaratory statement, and the company or its grantee to show whether said tracts applied for have been sold by it.

If the company or its grantee fail or refuse to appear and offer any testimony, the filing should be allowed under the rule that "where the subject-matter of a negative averment lies peculiarly within the knowledge of the other party, the averment is taken as true, unless disproved by that party." (1 Greenleaf on Evidence, paragraph 79.)

In making returns of the moneys arising from the sale of said lands, the local officers should be instructed to keep a separate account of the lands sold and the moneys received therefor on account of said company, in order that the same may be passed to its credit.

In this case, inasmuch as it does not satisfactorily appear whether the lands applied for had been sold by the company at the time Mr. Dudymott filed his declaratory statement, you will instruct the local officers to call upon said company for a statement showing whether said lands had been sold by it at that time, and if it refuse or neglect to furnish such statement within thirty (30) days after the service of said notice, that they order a hearing to determine that fact, under the rule above set forth.

For the reason stated your decision is reversed, and the papers transmitted with your letter of January 22, 1878, are herewith returned.

Very respectfully,

C. SCHURZ,
Secretary.

COMMISSIONER OF THE GENERAL LAND OFFICE.

Application for a review of the foregoing decision having been made to the honorable Secretary of the Interior, the whole subject was still further examined by him, and the previous opinion was affirmed by his decision of 3d September, 1878, hereto appended, and the instructions were ordered to issue accordingly.

DEPARTMENT OF THE INTERIOR,
Washington, September 3, 1878.

SIR: I have considered the application of the Kansas Pacific Railroad Company for a suspension and reconsideration of my decision of July 23, 1878, in the matter of the application of Nelson Dudymott to file a declaratory statement on the N. $\frac{1}{2}$ N.E. $\frac{1}{4}$ lot No. 7, and the S.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of section 7, township 11 S., range 5 E., in the State of Kansas, which tracts fall within the granted limits of said company, made by the act of July 1, 1862, as amended by the act of July 2, 1864. (12 Stat., p. 489, sec. 13; and 13 Stat., p. 356, sec. 4.)

Owing to the importance of the questions involved in this case, I have considered a like application made by the Union Pacific Railroad Company, filed by its attorneys, as said company will be affected in like manner as the Kansas Pacific Railroad Company, although not a party to the record in this case.

In my decision of July 23, 1878, it was held—

First. That the grant to said company was made, subject to all the conditions named in the granting act, one of which is, that all the lands so granted "which shall not be sold or disposed of by said company within three years after the entire road shall have been completed shall be subject to settlement and pre-emption like other lands, at a price not exceeding one dollar and twenty-five cents per acre, to be paid to said company."

Second. That more than three years having elapsed since the entire road was completed, all of the lands inuring to said company, by virtue of its grant, not sold, are subject to settlement and pre-emption, like other public lands, at one dollar and twenty-five cents per acre.

The applications for a suspension and reconsideration of said decision are based upon the following grounds:

First. That the grant to said companies was a grant *in presenti* and vested in them, and them only, the right to sell all of the lands granted.

Second. That the execution and delivery of a mortgage by the companies is a disposition of such lands within the meaning of the words "or disposed of," occurring in the last clause of the third section of the granting act.

Third. That if an actual sale of the lands, and an actual sale *only*, was authorized, the companies, by the execution and delivery of certain mortgages to the persons therein named, have "sold and disposed of" and conveyed the title to all the lands inuring to them by virtue of the granting acts. In my decision of July 23, 1878, it was held that the conditions contained in the last clause of the third section of the granting act "is in effect a reservation of a power of sale in the government of the lands granted to the company which remain unsold by it at the expiration of three years after the entire road was completed, under the provisions of the pre-emption law." This conclusion was reached after mature deliberation, and I see no good reason to doubt its correctness.

Even if it be true that the grant to the companies was a grant *in presenti*, it was nevertheless subject to the conditions therein mentioned, and vested in the companies for a time only, the exclusive right to sell their lands at such rates and for such prices as they might be able to obtain therefor. The time, however, in which the companies might exercise this right was limited in the act, and the companies by the performance of the conditions precedent, therein named, have terminated that right and rendered the lands unsold subject to sale by the government.

The fact that the Kansas Pacific Railroad Company, at least, understood that its right to sell and dispose of the lands inuring to it under its grant would cease at a certain time, was clearly shown in my decision in this case. It is not now denied by said company that such construction was given to the act by its officers when the circular of its land commissioner, dated May 12, 1873, was issued. If that construction was correct then, it is correct now, and I am unable to perceive any reason why the law should not be administered in accordance with its plain terms, and the clear understanding by both parties in interest to the contract and stipulations therein contained.

In support of the second proposition counsel have cited authorities showing the construction placed by the Supreme Court and the honorable Attorney General on the words "dispose of," as they occur in the third section of article four of the Constitution of the United States, which reads as follows: "Congress shall have power to dispose of and make all needful rules and regulations respecting the territory and other property of the United States."

In the authorities cited it is held that the words "dispose of" authorize not only the sale of lands and other property by the government, but also the leasing of the

same. It is urged by counsel, therefore, that inasmuch as the Supreme Court has given a larger and more comprehensive meaning to the word *dispose* than to the word *sell*, that the words "or disposed of," in the clause under consideration, should be construed to include not only a sale, but any other disposition which the companies may have made of the lands granted to them.

The word *dispose* undoubtedly is more comprehensive in its meaning than the word *sell*, and may be properly used not only to convey the idea of a sale of lands, but also some other or different disposition of the same. It may be used, and, in fact, often is used in the same sense and to convey the same idea as the word *sell*. The question now under consideration, however, is not the meaning which *may* be given to the words "or disposed of," but the meaning which Congress intended *should* be given to those words as they occur in said clause.

"It is an established rule in the exposition of statutes, that the intention of the law-giver is to be deduced from a view of the whole and every part of a statute taken and compared together. When the words of the statute are not explicit, the intention is to be collected from the context—from the occasion and necessity of the law, from the mischief felt—and the object and remedy in view; and the intention is to be taken or presumed, according to what is consonant to reason and good discretion." (Potter's Dwaris, p. 194, note 13.)

"The framers of laws do not weigh only the force of single words, as philologists and critics, but of whole clauses and designated objects, as statesmen and practical reasoners. In common language the same word has often various meanings. The peculiar sense in which a word is used in any section is to be determined by the context." (*Ibid.*, pp. 195, 196.)

In relation to the proper construction to be given to words, the Supreme Court in the case of *Maillard vs. Lawrence* (16 Howard, 261) laid down the following rule: "The popular or received import of words furnishes the general rule for the interpretation of public laws as well as of private and social transactions, and wherever the legislature adopts such language in order to define and promulge their actions, or their will, the just conclusion from such a course must be that they not only themselves comprehended the meaning of the language they have selected, but have chosen it with reference to the known apprehension of those to whom the legislative language is addressed, and for whom it is designed to constitute a rule of conduct, viz, the community at large."

By the third section of the granting act, the section which contains the clause now under consideration, a grant of many millions of acres of land was made to said companies for the purpose of aiding in the construction of the roads therein mentioned.

By the fifth section of said act it is provided that the Secretary of the Treasury shall, upon the proof therein mentioned being presented to him, issue to said companies the bonds of the United States to the amount of \$16,000 for each mile of said road as constructed, in sections of forty miles each, and that the issuance and delivery of said bonds to the companies "shall *ipso facto* constitute a first mortgage on the whole line of the railroad and telegraph line, together with the rolling stock, fixtures, and property of every kind and description."

If it be true, therefore, that Congress intended that the execution and delivery of a mortgage by either of said companies should be a disposal of the lands granted within the meaning of the words "or disposed of," the same act which provided that unless said lands were "sold or disposed of by said company within three years after the entire road shall have been completed, shall be subject to settlement and pre-emption like other lands," provided in terms that no sales should be made by settlement and pre-emption of the lands granted to the company which accepted the bonds provided for in the fifth section of the act.

The act must be so construed, if possible, as to give each and every part of it force and effect.

What force and effect, however, can be given to this clause if the execution and delivery of a mortgage be held to be the sale or disposal intended by Congress?

If by the execution and delivery of such mortgages all of said lands were "sold or disposed of," how could they thereafter be sold under the pre-emption law, and the moneys arising from such sales be paid to the companies? Manifestly, this was not the meaning given by Congress to the words "or disposed of," and hence such a meaning should not now be imparted to them. In the case of the *Railway Company vs. Prescott* (16 Wallace, 609), the Supreme Court in referring to this clause used the following language: "Looking to this policy, and to the very large quantity of lands granted by this statute to a single corporation, Congress declared that if the company did not *sell* those lands within a time limited by the act, they should then, without further action of the company or of Congress, be open to the actual settler under the same laws which govern the right of pre-emption on government lands, and at the same price." The court in that case evidently understood this clause to mean an actual sale of the lands, and so construed the words "sold or disposed of," in effect holding that "or disposed of" is simply interpretative of "sold." This, I think, is the sale of lands and other property by the government, but also the leasing of the

the true construction to be placed on those words. The large grant of lands made to said companies out of the public domain of the United States, and the loan of the credit of the government, were not simply to benefit and enrich the companies, but to aid in the construction of a work of national importance, which would not only benefit the company undertaking its construction, but would, also, benefit the people of the entire country.

It was clearly not the intention of Congress that so large a body of land as that granted by this act should remain under the control of any corporation for an indefinite period of time, and to prevent such a result the time within which the company or companies might have the exclusive sale of the lands granted was limited. At the expiration of that time they were to be sold like other public lands, at the minimum price established by law.

Congress did not intend that the lands granted should be sold at speculative prices, nor that they should be kept in large quantities out of market for an unreasonable length of time. This is evident from the low prices at which they were required to be sold at the expiration of three years from the completion of the entire road, and the short period that was allowed the company in which to sell its lands.

It has been from the earliest history of this government one of the most important and beneficent principles governing its land policy, not to favor the creation of large estates, but to put the public lands at such rates and in such quantities, within the easiest possible reach of the poor and homeless, that the latter might acquire homes for themselves and their families, and thereby promote a healthy development of the agricultural resources of the country. This principle has evidently been kept in view by the law-making power when aiding the construction of national highways by extensive grants of land, and, in accordance with it, it was wisely provided in this grant that, unless the lands granted were sold by the companies within a reasonable time, they should be opened to actual settlement under the auspices of the Government of the United States, and under the provisions of the pre-emption law, so that they might be acquired and settled upon by persons of limited means, while the proceeds of such sales are to be turned over to the companies.

I am, therefore, of the opinion that an actual sale to a *bona fide* purchaser, for a valuable consideration, within the time limited, is the only disposition which was intended by Congress should exempt any of said lands from sale under the pre-emption law.

In support of the third proposition counsel have filed copies of certain mortgages called deeds of trust), executed by said companies to secure the payment of the bonded obligations of the same.

These mortgages purport to convey conditionally the title to all the lands granted to said companies by the act of July 1, 1862, as amended by the act of July 2, 1864, reserving, however, the right to sell said lands on certain conditions, and providing that the moneys arising from such sales shall be paid to the trustees named in the mortgages, to be applied either in liquidation of the interest accruing on the bonds or of the bonds themselves.

Counsel urge that the execution and delivery of these mortgages was in effect a sale and conveyance of the legal title of the companies to all the lands inuring to them under said grants.

For the purpose of determining the question thus presented it becomes necessary not only to fix the character of the instruments executed by said companies, but also to ascertain whether the legal title to the lands therein described was by said instruments conveyed to the trustees therein named.

Each of these instruments provides that, if the company shall pay the indebtedness thereby secured, the estate, right, title, and interest of the parties of the second part shall cease, determine, and become void.

In the case of *Wilkins vs. Wright* (6 McLean, 341), the court, in passing upon the instrument then under consideration, said: "If it be a mortgage, before forfeiture it may be sold on execution against the mortgagor, subject to the mortgage. But if it be a deed of trust, nothing remains in the grantor which can be reached by execution. If it be a mortgage, on the payment of the money the title reverts to the mortgagor. But if it be a deed of trust, a reconveyance of the land is necessary. In either case the land is a security for the money. But under a mortgage a sale would be necessary to perfect the title in the mortgagee or in any other person. But if the instrument be a deed of trust, the fee stands vested in the grantee, and no sale is necessary. The distinction between a deed of trust and a mortgage is somewhat technical, and in many cases different minds might incline to the one character or the other of the same instrument."

"The parties in this case call the instrument a deed of trust, and provide that on the payment of the money the title should be reconveyed to the grantor free from all incumbrances. This is not the language of a mortgage, which provides that, on the payment of the money, the conveyance should be of none effect."

Tried by the rule laid down in this case, and I have been unable to find any case

establishing a different rule, the instruments filed in this case are mortgages and mortgages only.

Counsel have called my attention to the following cases, in which they claim that the court has decided that a mortgage conveys the legal title to the land therein described, viz: *Brobst vs. Brock*, 10 Wallace, 529; *Conrad vs. The Atlantic Insurance Co.*, 1 Peters, 441; *Van Ness vs. Hyatt*, 13 Peters, 297; *Bank of Metropolis vs. Guttschlick*, 14 Peters, 28; and *Tucker vs. Ferguson*, 22 Wallace, 527.

In the case of *Brobst vs. Brock*, the court held that "As between the mortgagor and all others than the mortgagee it is a lien, a security, and not an estate; but as between the parties to the instrument or their privies, it is a grant which operates to transmit the legal title to the mortgagee and leaves the mortgagor only a right to redeem."

The United States is not a party to any of these instruments, and hence under the case cited the mortgages are simply a lien.

In the case of *Conrad vs. The Atlantic Insurance Company*, the court held that the mortgagee holds the estate as the trustee of the mortgagor, and nothing more.

In the cases of *Van Ness vs. Hyatt* and *Bank of Metropolis vs. Guttschlick*, in both of which the instruments in question covered lands in the District of Columbia, the court held that the question was to be decided according to the laws of the State of Maryland, which adopted the rule established by the English common law. That rule, however, does not prevail in any of the States and Territories in which the lands covered by the mortgages filed in this case are situated.

In the case of *Tucker vs. Ferguson*, which involved the right of the State of Michigan to levy taxes on certain lands granted to said State by the act of March 3, 1856, to aid in the construction of a road from Flint to Père Marquette in said State, the court found—

First. That the entire road had been completed, and hence that all conditions precedent prescribed in the act of 1856 had been complied with, and the United States, therefore, had no interest in the lands.

Second. That by an act of the legislature of said State the title granted to the State was vested in the company.

Third. It appears in the record of the case that the instruments executed by the company to the trustees were intended to give the trustees the right to sell the lands therein described in order to raise moneys with which to construct the road.

In this case the court held that the title passed to the trustees. The question, however, as to whether the legal title passed to the trustees or not by the mortgages was unnecessary in the decision of the case, and in that respect is merely *obiter dictum*, for whether the title was absolutely in the company or in the trustees the lands in either case were subject to taxation by the State.

None of the decisions cited, in my opinion, should be considered as authority upon the question presented in this case.

It is a well-settled rule that the law of the State in which the lands are situated control, exclusively, its descent, alienation, and transfer, and the effect and construction which should be given to instruments which are intended to convey the legal title to the same.

In the case of the *United States vs. Crosby* (7 Cranch, 115), the court said: "The court entertain no doubt upon the subject, and are clearly of the opinion that the title to the land can be acquired and lost only in the manner prescribed by the law of the State where such land is situated."

In the case of *Clark vs. Graham* (6 Wheaton, 577), the court said: "It is perfectly clear that no title to lands can be acquired or passed, unless according to the laws of the State in which they are situated."

In the case of *McGoon vs. Scales* (9 Wallace, 27), the court said: "It is a principle too firmly established to admit of dispute at this day, that to the law of the State in which land is situated must we look for the rules which govern its descent, alienation, and transfer, and for the effect and construction of conveyances."

The following cases are to the same effect: *McCormick vs. Sullivan*, 10 Wheaton, 192; *Watts et al. vs. Waddell et al.*, 6 Peters, 389; *United States vs. Fox*, 4 Otto, 320; *Clark vs. Reyburn*, 8 Wall., 318; *Brine vs. Hartford Fire Insurance Company*, Oct. term, 1877.

It becomes necessary, therefore, to determine whether the legal title to lands is conveyed by a mortgage in the States and Territories through which the road and its branches, authorized by the act of July 1, 1862, run and in which the lands granted thereto are situated.

In the case of *Chick et al. vs. Willetts* (2 Kansas Reports, 384), the supreme court of that State said: "In this case the common-law attributes of mortgages have been by statute wholly set aside, and the ancient theories demolished. The statute gives the mortgagor the right of possession even after breach, and confines the remedy of the mortgagee to an ordinary action and sale of the mortgaged premises, negating the idea of title in the mortgagee."

"A mortgage is a mere security, although in the form of a conditional conveyance, creating a lien upon the property, but vesting no title, and giving no right of possession whatever, either before or after breach, and does not limit the mortgagor's right

to control it, except that the security shall not be impaired. He may pass title by sale subject to the lien."

The recent case of *Watterson vs. Devoe* (18 Kansas, 223), by the same court, is to the same effect.

In the case of *Kyger vs. Ryley* (2 Nebraska, 20), the supreme court of the State of Nebraska said: "In our State the mortgagor has the right of possession of the mortgaged premises before or after the money is due upon the mortgage, and after decree of foreclosure and sale, and up to the confirmation of the sale by the court. The remedy of the mortgagee is confined to an action for the sale of the pledge, or the mortgaged premises, to pay the debt secured by the mortgage, or to an ordinary suit at law to recover the debt itself.

"The mortgage is a mere pledge, or collateral security, creating a lien upon the mortgaged property, but conveying no title or vesting no estate either before or after condition broken."

The statutes of the Territory of Wyoming require actions to be brought to foreclose a mortgage, and negative the common law attributes of the same.

In the case of *Drake vs. Root* (2 Colorado, 685), the supreme court of the State of Colorado decided that "until forfeiture a mortgage is security only, which confers no right of entry on the mortgagee."

The statute of the Territory of Utah negatives the common law attributes of mortgages, and reads as follows:

"SECTION 260. A mortgage of real property shall not be deemed a conveyance, whatever its terms, so as to enable the owner of the mortgage to recover the possession of the real property without a foreclosure and sale." (Compiled Laws of Utah, 478.)

The statutes of Nevada and California are in the exact words of the statute of Utah, above quoted.

In the case of *Hyman et al. vs. Kelly et al.* (1 Nevada, 179), the supreme court of the State of Nevada held that the statute in that State restricted the mortgagee to the equitable remedy of foreclosure and sale, and that he was not entitled to a strict technical foreclosure in equity, and could not maintain ejectment for the mortgaged premises.

In the case of *Johnson vs. Sherman* (15 California, 287), the supreme court of the State of California said: "A mortgage is a mere security, and does not vest in the mortgagee any estate in the land either before or after condition broken. Payment after default operates to discharge the lien equally with payment at the maturity of the debt."

The following cases are to the same effect: *Dutton vs. Warschauer*, 21 Cal., 609; *Nagle vs. Macy*, 9 Cal., 426; *Goodenow vs. Ewer*, 16 Cal., 461.

From the statutes and decisions above cited it is clear, I think, that a mortgage in the several States and Territories within which the lands granted by the act of July 1, 1862, and the act amendatory thereof of July 2, 1864, are located, is not a conveyance of the legal title to the land, but simply a pledge, a security, a lien thereon, and that no estate is by such instrument vested in the mortgagee, either before or after condition broken.

In each and every of the mortgages presented in this case the legal title, as well as the right of sale and disposition of the lands therein described, is retained in the companies, the trustees indorsing the instrument, of conveyance simply to release the mortgages from the tracts conveyed.

If the statutes of the different States and Territories in which the lands described in said mortgages are situated were not what I have found them to be, I should still doubt the right or the power of either of said companies to defeat one of the express provisions contained in the granting act, viz, the right of the government to sell to actual settlers, like other public lands of the United States, the lands remaining unsold after the time limited therein. The grant to said companies was conditional, and they could not defeat that condition by any act not in accordance with the provisions of the act by which the grant was made.

The mortgagees must be considered to have taken the mortgage with full knowledge of the limitations of the right and authority of the companies to make the same. While the companies, by the terms of the mortgages, had the right to sell and dispose of the lands, the trustees were to receive the proceeds of all sales of lands made. This right of the companies to sell the lands having ceased, by virtue of the third section of the act of July 1, 1862, the security of the mortgagees will be subrogated to the moneys accruing from the sales when made by the government.

After full consideration, I am unable to find any reason for the suspension of my decision of July 23, 1878, and you will, therefore, without unnecessary delay, cause the instructions to be issued to the local officers as therein directed.

The papers filed with these applications are herewith transmitted.

Very respectfully,

C. SCHURZ, *Secretary.*

COMMISSIONER OF THE GENERAL LAND OFFICE.

In pursuance of the foregoing decisions this office issued the following instructions:

DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,
Washington, D. C., August 10, 1878.

REGISTER and RECEIVER,
United States District Land Office :

GENTLEMEN: On the 23d ultimo the honorable Secretary of the Interior rendered decision in the case of Nelson Dudymott *vs.* The Kansas Pacific Railway Company, involving a construction of the last clause of section 3 of the act of Congress approved July 1, 1862, entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, * * *" (12 Stat., p. 489), which clause is in the following words:

"And all such lands, so granted by this section, which shall not be sold or disposed of by said company within three years after the entire road shall have been completed, shall be subject to settlement and pre-emption, like other lands, at a price not exceeding one dollar and twenty-five cents per acre, to be paid to said company."

In accordance with such decision, a copy of which is herewith sent you, the following instructions are given. They will apply only to lands granted by said act of July 1, 1862, as amended by the act of July 2, 1864, and the act of March 3, 1869, authorizing the transfer of part of the grant to the Union Pacific Railway Company, eastern division, to the Denver Pacific Railway Company.

Where any person shall apply to file a pre-emption declaratory statement for a tract, or tracts, not exceeding a quarter section, within the limits of such grant, and where the entire road shall have been completed for more than three years, such applicant will be required to show that he or she is duly qualified as a pre-emptor. Thereupon the declaratory statement will be conditionally received and the proper note thereof made.

You will immediately thereafter call upon the proper officer of the railroad company for a statement showing whether the lands applied for had been sold by it prior to the date of the application to file a declaratory statement therefor.

If the company shall report that the land had been so sold, the report must show the date of such sale, and the name of the person or persons to whom sold, and give a description of the deed or instrument of conveyance. On the receipt of such a report you will reject the application to file a declaratory statement, subject to appeal to this office.

If the company shall state that the land had not been so sold, you will allow the declaratory statement, and upon the applicant showing, at the proper time, a full compliance with the requirements of the pre-emption laws, permit payment and entry at \$1.25 per acre.

Each declaratory statement allowed, and entry permitted, should be given its proper number of the current series.

Should the company neglect or refuse to furnish the required statement within thirty days after your call therefor, you will, upon a request by the pre-emption applicant, order a hearing to determine whether the tract or tracts applied for are subject to such filing, giving due notice of the time when and place where such hearing will be held, in some newspaper published and circulated in the county where the lands are situated, notifying said company, and any and all persons, if such there be, claiming title to said lands under it, to appear at the time and place mentioned and show cause why the declaratory statement should not be received.

At such hearing the applicant will be required to prove that he or she is an actual settler upon the land, and a qualified pre-emptor, and that the records of the county, where deeds and conveyances are recorded, do not show that the land had been sold at the date of the application to file declaratory statement therefor; and the company, or its grantee, will be permitted to establish the fact of such prior sale by it.

If the company, or its grantee, fail or refuse to appear and offer any testimony, and the proofs submitted by the applicant be, in your judgment, satisfactory, you will allow the filing of the declaratory statement, and transmit the record to this office for examination and instructions. If both parties appear at the hearing and submit testimony, you will transmit the record to this office with your joint opinion thereon.

As the law requires the proceeds of the sales of such lands to be paid to the company, payment therefor must be made with cash, and not with military bounty land warrants or agricultural-college scrip; nor can a pre-emption filing therefor be transmuted into a homestead entry.

In making returns of the lands thus sold you will transmit separate abstracts of such lands and accounts of moneys received therefor, for each company, in order that such moneys may be passed to the credit of the proper company.

For your information and guidance I subjoin the following list of companies whose

grants are clearly under, or subject to, the terms of the act of July 1, 1862, with the date of the completion of each road, as appears from the records of the department:

Union Pacific Railroad, completed July 15, 1869.

Kansas Pacific Railway, completed October 19, 1872.

Denver Pacific Railway, completed May 2, 1872.

Sioux City and Pacific Railroad, completed March 2, 1869.

Central Pacific Railroad, completed July 15, 1869.

Western Pacific Railroad, completed January 21, 1870.

Question as to the completion of the Central Branch, Union Pacific Railroad, has been submitted to the Secretary of the Interior by the company, and is now under consideration. Applications involving that company's lands, therefore, will not be considered by you until further instructed.

Should application be made to file for lands within the limits of grants other than those named above, with allegation that such lands are subject to the same or a like condition as imposed by the act of July 1, 1862, you will transmit the application to this office for instructions.

Very respectfully,

J. A. WILLIAMSON,
Commissioner.

Approved.

C. SCHURZ,
Secretary of the Interior.

SEPTEMBER 4, 1878.

Military bounty-land warrants and scrip.

The locations made with land warrants granted as bounties for military services under the respective acts of Congress of February 11, 1847, September 28, 1850, March 22, 1852, and March 3, 1855, during the last fiscal year, amount to 84,720 acres, which is less by 12,480 acres than the amount reported for the preceding fiscal year.

No warrants issued under the act of July 27, 1842, which was a continuation of the law of May 6, 1812, appear to have been returned as located, nor have any locations been made with the warrants issued under the special act of Congress approved April 11, 1860, and known as "*Porterfield warrants*," during the fiscal year.

Tabular statement No. 6, which accompanies this report, will be found to give a full and detailed exposition of the issues and locations of all the warrants granted under the four acts first above named.

This exhibit shows that 550,914 warrants of various amounts, aggregating 60,986,070 acres, have been issued; that 527,811 warrants, calling for 58,357,090 acres, have been located, and that 23,103 warrants, requiring for their satisfaction 2,628,980 acres of the public lands, are still unlocated.

There are now outstanding and unsatisfied warrants issued under the act of 27th July, 1842, representing 20,480 acres; and under the special warrants act of April 11, 1860, 2,400 acres.

Under the provisions of section 461 United States Revised Statutes, 219 exemplifications of patents, warrants, and papers on file have been made, upon payment of authorized fees therefor, and transmitted to parties in interest, during the fiscal year, while in the same period certificates of approval of the assignments of 371 military bounty-land warrants have been made and recorded, and 564 located warrants have been examined as to the validity and regularity of the titles thereto, and submitted for patent. Many cases have been suspended for want of proper evidence of title.

It was stated in my last annual report that a large number of located warrants were then on the suspended files of the office and withheld from patent on account of various specified defects. I have now to state that special attention has been given to this class of cases, with the con-

fidant expectation that thereby the difficulties in the way of an early settlement of these claims may be removed, and the same duly patented.

Under the 9th section of the act of Congress approved February 11, 1847, there were granted to certain soldiers in the war with Mexico bounty-land warrants for 160 and 40 acres, according to the term of enlistment. These warrants were issued under directions from the Pension Bureau, then in the War Department, and were "to be deposited in the General Land Office, at the seat of government." They were mailed to the address of the owners, as shown by the papers, and such as were not delivered found their way back to the office in *dead letters*. The following is a correct list of these warrants, with the number, and name of warrantee, with place of residence found thereon, and they will be delivered upon satisfactory proof of ownership from the party or parties entitled thereto:

ONE HUNDRED AND SIXTY ACRES.

No.	Names of warrantees.	Residences.
1, 551	David G. W. Christian	Cincinnati, Ohio.
4, 558	James S. Gitty	Saint Louis, Mo.
4, 808	Christian Ledigh	Hamilton, Ohio.
8, 760	William H. Miller	Louisville, Ky.
11, 370	Richard Tolin	Richmond, Mo.
12, 378	Robert McNair	Vicksburg, Miss.
12, 602	Margaret Snyder	Cincinnati, Ohio.
15, 357	Phillip Friezard	Jacksonville, Ohio.
15, 514	James M. Walling	Augusta, Ga.
25, 913	Alexander Hood	Mineral Point, Wis.
28, 162	Peter C. Melton	Camden, Ala.
28, 715	John M. Guill, or Griell	Lexington, Ky.
29, 624	John Collins	Louisville, Ky.
29, 730	Theodore Scott	Mobile, Ala.
29, 745	John McMullen	Saint Louis, Mo.
32, 791	John Jublo	New Orleans, La.
32, 838	James Tierney	Chicago, Ill.
34, 135	Henry Castle	Indianapolis, Ind.
34, 601	William Dudley	New Albany, Ind.
37, 680	Theodore Logan	Philadelphia, Pa.
44, 837	Josiah Doyle	Palmyra, Mo.
46, 075	Mark D. Montgomery	San Antonio, Tex.
48, 505	William Herberts	Saint Louis, Mo.
49, 640	Thaddens W. Stephenson	Circleville, Ohio.
52, 821	Peter Hertzoy	Dayton, Ohio.
55, 575	James Murphey	Holly Springs, Miss.
55, 946	Peter Bance	Saint Louis, Mo.
56, 003	William Scoggin	Tallabindi, Miss.
56, 737	Frederick Keller	Saint Louis, Mo.
56, 985	Louis Shott	Saint Louis, Mo.
57, 075	James Morgan	Saint Joseph, Mo.
57, 188	William Hasse, or Hape	Saint Louis, Mo.
57, 229	James H. Davis	Saint Louis, Mo.
57, 290	Henry S. Henry	Cincinnati, Ohio.
57, 703	George Myers	Warsaw, Mo.
58, 345	Lewis Stiles	New York, N. Y.
58, 926	William F. Whitley	Jefferson City, Mo.
60, 788	Frederick A. Delichaux	Saint Louis, Mo.
61, 061	John R. Paulling	Marion, Ala.
61, 458	James B. Fogg	Buffalo, N. Y.
61, 918	Edward Wilson	Covington, Ky.
62, 091	Richard Flemming	Saint Louis, Mo.
62, 129	William Archer	Louisville, Ky.
62, 934	Thomas J. Burr	Chicago, Ill.
63, 651	Thomas J. Davis	Care N. S. Lawrence, present.
63, 665	Charles S. Hand	San Francisco, Cal.
64, 906	Henry Williams	Pensacola, Fla.
70, 169	Andrew J. Spalding	Plattsburgh, Mo.
70, 374	John Campbell	Saint Louis, Mo.
71, 208	Philander Brown	Santa Fé, N. Mex.
71, 408	Christian Ludwig Theodore Gilbert	Santa Fé, N. Mex.
71, 457	Catharine Schwend	Madison, Ind.
71, 610	Benjamin Whitehouse	Stockton, Cal.
72, 039	James Phillips	Troy, Ohio.
72, 074	Bernard McCardle	Franklin, Tex.
72, 081	Charles Seymour	Dona Ana, Tex.
72, 157	Edwin B. Jones	Care I. N. Bradford, present.
72, 275	John George Kunz	Coloma, Cal.
73, 393	Casper White	Peoria, Ill.
73, 507	Joseph Boernick	Saint Louis, Mo.
73, 883	Arlington Merrick	Brownsville, Tex.

ONE HUNDRED AND SIXTY ACRES—Continued.

No.	Names of warrantees.	Residences.
74, 857	George Masson	Pittsburgh, Pa.
75, 600	Samuel Anderson	Jasper, Tenn.
76, 374	Isaac Lockwood	San José, Cal.
77, 003	Jacob Alfstag, alias Olfstag	Coloma, Cal.
77, 153	Clayton Stokes	Care I. I. Coombs, present.
77, 193	John Mellon	Savannah, Ga.
77, 273	Patrick McGlaughlin	Vancouver, Oreg.
77, 319	John N. Shrive	San Antonio, Tex.
77, 751	Charles Walpert	Columbia City, Oreg.
77, 913	Peter Doll	San Francisco, Cal.
78, 380	Jacob F. Hock	Sacramento, Cal.
78, 693	Daniel Poling, Mary Harper, and Eliza Alcott	Taylorville, Ohio.
78, 951	Richard Cremey	Saint Louis, Mo.
79, 029	Patrick Mullen	Houston, Tex.
79, 921	George Fulton	Stockton, Cal.

FORTY ACRES.

910	Thomas C. Corcoran	Saint Louis, Mo.
1, 818	Hugh Ochiltree	To Hon. Chester Ashley, United States Senate.
2, 366	John Montgomery	Georgetown, Ky.
4, 648	Henry Gifford	Brownsville, Tex.
5, 557	Charles Revett	Franklin, Mo.
6, 522	John S. Poland	Marshall, Tex.

Agricultural-college scrip.—The number of certificates of this class of scrip, the titles to which have been examined and found regular and correct, and the same put in course of patenting during the fiscal year, is 130, requiring for the satisfaction thereof 20,800 acres, and 640 acres have been located with such certificates during the same period.

Only one duplicate piece of scrip has been issued in virtue of the act of Congress of June 20, 1874, entitled "An act to authorize the issue of duplicate agricultural land scrip, where the original has been lost or destroyed during the year."

Revolutionary bounty-land scrip.—Military land warrants issued by the commonwealth of Virginia for the service of the officers, soldiers, seamen, &c., of her continental and State lines and navy in the war of the Revolution have been satisfied during the fiscal year, in accordance with the provisions of the acts of Congress of August 31, 1852, and June 22, 1860, to the extent of 6,696 acres, embraced in 92 certificates, and duly recorded.

During the year, five claims have been filed, founded upon said warrants, and calling for 5,800 acres, which, with those heretofore presented and now pending, represent 314 cases, and require for their satisfaction 99,612 acres.

The amount of this class of scrip received in payment of the public lands, at the rate of \$1.25 per acre for each acre surrendered, during the year, is 10,341 acres.

Virginia military district, Ohio.—In the annual report of this office for the year ending June 30, 1877, I took occasion to make a full and explicit statement, to which I respectfully refer, of the objections then filed and pending against the satisfaction, by the issue of patents, of the surveys made in said district and entered therein, with Virginia military bounty-land warrants.

From a careful examination of all the matters involved, the conclusion was arrived at that no action could justly be had looking to the satisfaction of this class of claims until the matters in controversy affecting the said lands between the "Ohio Agricultural and Mechanical College"

on the one hand and the locators or their assignees on the other part were definitely settled and determined, either by competent judicial decision or by a legislative interpretation of the true intent and meaning of the act of Congress of February 18, 1871, which ceded to the State of Ohio, upon certain specified conditions, all the unsurveyed and unsold lands in the military district in question, to all the rights of which cession the said college succeeded in virtue of authority granted by the legislature of the said State of Ohio.

The necessary legislation to remove the difficulties in the way of a final settlement of these claims was proposed at the late session of Congress (bill H. R. 4355), and is now pending therein.

If the proposed legislation is adopted and made law, there will be no objection in the way of carrying the surveys in question into patent, and all entries of land in said district properly made can be surveyed and patented.

Patents for 536 acres of land in the said Virginia military district, Ohio, have been issued, and the number of pending claims therefor is 61, calling for 8,815 acres, all of which have been suspended in consequence of the controversy above referred to, or on account either of caveats filed against the satisfaction thereof or defects in the chain of title or heirship.

Appended is a statement of the total number of acres located with military bounty-land warrants issued under the acts of 1847, 1850, 1852, and 1855, in the several land States and Territories, for the year ending June 30, 1878:

	Acres.		Acres.
Arkansas	160	Minnesota	640
California	69,860	Nebraska	640
Colorado	640	Nevada	160
Dakota	5,680	Oregon	320
Florida	640	Utah	480
Idaho	160	Washington	120
Kansas	4,260		
Louisiana	320	Total	84,720
Michigan	640		

The division of this office which had charge of business relating to military bounty-land warrants and similar matters, reports the following synopsis of the work of the division for the year ending June 30, 1878:

Letters received	2,251
Letters written	2,380
Number of pages for record of same	2,197
Number of warrants examined and transmitted to recorder for patent	564
Number of agricultural-college scrip certificates examined and passed as above	130
Number of certificates of revolutionary bounty-land scrip issued and recorded under acts of August 31, 1852, and June 22, 1860	92
Amount of acres called for thereby	6,696
Number of warrants the assignments of which have been approved	371
Number of certificates of revolutionary bounty-land scrip authorized to be transferred by attorneys	79
Number of certified copies of records, &c., made under section 461, United States Revised Statutes	219
Number of patents issued under special acts	3
Amount of acres called for thereby	536
Number of certificates of scrip reissued	6

Mineral lands.

Mineral lands are disposed of pursuant to the special provisions contained in sections from 2318 to 2346, inclusive, of the Revised Statutes of the United States and other laws. During the fiscal year ending

June 30, 1878, mineral entries were made to the extent and at the district land offices indicated below, viz:

State or Territory.	District land office.	Number of entries.
Arizona.....	Florence.....	2
Do.....	Prescott.....	11
California.....	Bodie (formerly Independence).....	12
Do.....	Humboldt.....	9
Do.....	Marysville.....	23
Do.....	Sacramento.....	70
Do.....	San Francisco.....	3
Do.....	Shasta.....	10
Do.....	Stockton.....	24
Do.....	Susanville.....	7
Do.....	Visalia.....	6
Colorado.....	Central City.....	151
Do.....	Del Norte.....	1
Do.....	Fair Play.....	34
Do.....	Lake City.....	49
Do.....	Pueblo.....	1
Dakota.....	Deadwood.....	20
Montana.....	Bozeman.....	4
Do.....	Helena.....	64
Nevada.....	Carson City.....	29
Do.....	Eureka.....	47
New Mexico.....	Mesilla.....	1
Oregon.....	La Grande.....	3
Do.....	Oregon City.....	1
Do.....	Roseburg.....	4
Utah.....	Salt Lake City.....	56
Total.....		642

The following mining claims were approved and patented during the fiscal year ending June 30, 1878:

Name of mine.	Mining district.	Township.	Range.
ARIZONA.			
<i>Pima County.</i>			
French mine and mill site.....			
<i>Yavapai County.</i>			
Dividend mine.....	Big Bug.....		
First extension Dividend mine.....	do.....		
Independence mine.....	do.....		
Galena mine.....	do.....		
Big Bug mine.....	do.....		
Eugenie mine.....	do.....		
Third north extension of the War Eagle mine.....	Bradshaw Mountain.....		
First south extension of the War Eagle mine.....	do.....		
First north extension of the War Eagle mine.....	do.....		
Discovery location of the War Eagle mine.....	do.....		
Fair Play mine.....	Copper Mountain.....		
California mine.....	Tiger.....		
<i>Yuma County.</i>			
Castle Dom mine.....	Castle Dom.....		
CALIFORNIA.			
<i>Alpine County.</i>			
Duke of Wellington quartz mine and mill site.....	Alpine.....	9 & 10 N	20 E.
Highland Mary quartz mine.....	do.....	9 & 10 N	20 E.
La Fayette quartz mine.....	do.....	9 & 10 N	20 E.
Union quartz mine.....	do.....	9 & 10 N	20 E.
<i>Amador County.</i>			
E. A. Kent placer.....	Aqueduct City.....	6 N.	12 E.
Cornelius B. Randall placer.....	do.....	7 N.	12 E.
Clinton quartz mine.....	Clinton.....	6 N.	12 E.
Loyal Lode quartz mine.....	Drytown.....	7 N.	10 E.
Golden Crown quartz mine and mill site.....	do.....	7 N.	11 E.

Mining claims approved and patented, &c.—Continued.

Name of mine.	Mining district.	Township.	Range.
<i>Amador County—Continued.</i>			
Michael Twohig et al. placer	Jackson	6 N.	11 E.
Jackson quartz mine	do	6 N.	11 E.
Oak Hill copper mine	Newton	6 N.	10 E.
Wheeler quartz mine	Pokerville	7 N.	10 E.
Golden Eagle quartz mine	Sutter Creek	6 N.	11 E.
Confidence quartz mine	Volcano	7 N.	12 E.
Golden Gate quartz mine	do	7 N.	12 E.
<i>Butte County.</i>			
49 and 56 quartz mine	Con Cow	21 N.	4 E.
<i>Calaveras County.</i>			
Bowee quartz mine and mill site	Angels	3 N.	13 E.
Angels Deep Mining Company placer	Angels Camp	3 N.	13 E.
Jacob F. Myers et al. placer	Brushville	3 N.	10 E.
McCreight and Reed quartz mine	Calaveras County	2 N.	13 E.
William Burnette et al. placer	Doytown	3 N.	13 E.
Giacomo Malissimo et al. placer	Douglas Flat	3 N.	14 E.
Allen Thomas placer	do	3 N.	14 E.
Collier gold, silver, and copper mine	Gopher	1 N.	11 E.
Star and Excelsior copper mine	do	1 N.	11 E.
Peter Snyder et al. placer	Murphy	3 N.	14 E.
Fair Play quartz mine	San Domingo	3 N.	13 E.
Cordova mine	Upper Calaveras	4 N.	12 E.
<i>Del Norte County.</i>			
Elbert Barnett placer		47 N.	14 W.
<i>El Dorado County.</i>			
James M. Anderson et al. placer	Benton	10 N.	12 E.
Joseph J. Barnes et al. placer	Coloma	11 N.	10 E.
Addison Tiree placer	Coon Hollow	10 N.	10 E.
Dominico Buero et al. placer	do	10 N.	11 E.
Adolph Wenzel et al. placer	Diamond	10 N.	10 E.
Robert Marshall et al. placer	Diamond Springs	10 N.	10 E.
Griffith and Bryant quartz mine	do	10 N.	11 E.
Carrie Hale Hydraulic Mining and Water Company placer.	Henry's Diggins	9 N.	13 E.
Guadalupe quartz mine	Kelsey	11 N.	10 E.
St. Lawrence No. 2 quartz mine	do	11 N.	10 E.
Daniel McGee placer	Michigan Flat	11 N.	10 E.
Mathias Seely et al. placer	Moco Cañon	9 N.	11 E.
Maryland quartz mine	Placerville	10 N.	11 E.
William Crosley et al. placer	Smith's Flat	10 N.	11 E.
George W. Swan placer	Texas Hill	10 N.	11 E.
Giovanni Rafetto et al. placer	Webber	10 N.	12 E.
<i>Inyo County.</i>			
Eclipse silver mine	Lookout	19 S.	42 E.
Lone Star mine	do	20 S.	42 E.
<i>Klamath County.</i>			
Richard M. Fernald et al. placer		11 & 12 N.	1 E.
<i>Kern County.</i>			
Estacha quartz mine	Clear Creek	28 S.	32 E.
St. Charles quartz mine	do	28 S.	32 E.
Sunrise quartz mine	do	28 S.	32 E.
<i>Mariposa County.</i>			
Robert A. Fry placer	Chowchilla	5 S.	19 E.
Louisiana gold quartz mine	Coulterville		
Margaret quartz mine	do	2 & 3 S.	16 E.
Doss quartz mine	Hornitas	5 S.	16 E.
White quartz mine	do	5 S.	16 E.
Spencer quartz mine	Mariposa	4 S.	18 E.
Whitlock quartz mine	do	4 S.	18 E.
Washington quartz mine	Quartzburg	5 S.	16 E.
Jenny Lind mine	do	5 S.	16 E.
<i>Mono County.</i>			
Osceola mine and mill site	Bodie		
Tioga mine	do		

Mining claims approved and patented, &c.—Continued.

Name of mine.	Mining district.	Township.	Range.
<i>Napa County.</i>			
Valley quicksilver mine.....	Pope Valley.....	9 N.	6 W.
Silver Bow quicksilver mine.....	do.....	10 N.	6 W.
Pope quicksilver mine.....	do.....	11 N.	7 W.
S. N. Putnam et al. placer, inch, Sterling iron mine ..	Saint Helena.....	7 N.	6 W.
Sterling iron mine	do.....	7 N.	6 W.
<i>Nevada County.</i>			
C. W. Dannals placer.....	Columbia Hill.....	17 N.	9 E.
Irish American quartz mine	Grass Valley.....	15 & 16 N.	8 E.
Robert McMurray placer	Grizzly Hill and Kenebec	17 N.	9 E.
N. A. Carion placer.....	Kenebec Hill	17 N.	9 E.
Yuba Gravel Range Mining Company placer	do	17 N.	9 E.
John H. Eden placer.....	Nevada.....	16 N.	8 E.
North Banner quartz mine	do	16 N.	9 E.
D. D. Shattuck placer	do	15 N.	9 E.
D. D. Shattuck placer	do	15 & 16 N.	9 E.
James L. Gould placer.....	do	16 & 17 N.	11 E.
Yuba quartz ledge No. 2 and mill site	Nevada County	17 N.	11 E.
Oliver quartz mine and mill site	do	18 N.	11 E.
Holland quartz mine and mill site	do	18 N.	11 E.
Watt Blue Gravel Mining Company placer.....	Woolsey Flat and North Bloomfield.	18 N.	10 E.
South Yuba Canal Company placer	You Bet	16 N.	10 E.
Bernhard Huysik et al. placer	do	16 N.	10 E.
<i>Placer County.</i>			
Greene or Fred. Mallet quartz mine.....	Auburn.....	12 N.	8 E.
M. A. Wheaton placer.....	Michigan Bluff.....	14 N.	11 E.
Scott quartz mine.....	New Castle	12 N.	7 E.
Heirs of N. S. Page, deceased, placer	Secret Ravine.....	11 N.	7 E.
<i>Plumas County.</i>			
Caldwell quartz mine	Granite Basin.....	23 N.	6 E.
Plumas Eureka Mining Company placer.....	do	22 N.	11 E.
Plumas Eureka Mining Company placer.....	do	22 N.	11 E.
Plumas Eureka Mining Company placer.....	do	22 N.	12 E.
<i>Shasta County.</i>			
Laurent Rauzi placer.....	Churntown	33 N.	5 W.
Emanuel Levin et al. placer.....	French Gulch.....	33 N.	7 W.
E. M. Dixon et al. placer.....	Horse Town	31 N.	6 W.
Drury D. Harrill placer	Lower Spring.....	32 N.	5 W.
Michael K. Welsh placer	Rock Creek.....	32 N.	6 W.
William T. Hiatt placer.....	Quartz Hill	32 N.	5 W.
Edward Sweeney placer	Spring Creek	32 N.	5 W.
James Leary placer.....	do	32 N.	5 W.
John Price placer.....	Texas Spring	31 N.	5 W.
William Ware placer	Weaversville		
<i>Sierra County.</i>			
Ruby Gold Gravel Mining Company placer	Sierra County.....	19 N.	10 E.
Ruby Gold Gravel Mining Company placer	do	19 N.	10 E.
Sierra Buttes Quartz Mining Company placer.....	do	20 N.	12 E.
Sierra Buttes Quartz Mining Company placer.....	do	20 N.	12 E.
Sierra Buttes Quartz Mining Company placer.....	do	20 N.	12 E.
Sierra Buttes Quartz Mining Company placer.....	do	20 N.	12 E.
Sierra Buttes Quartz Mining Company placer.....	do	20 N.	12 E.
Sierra Buttes Quartz Mining Company placer.....	do	20 N.	12 E.
Four Hills quartz mine	do	21 N.	11 E.
Empire quartz mine and mill site	do	21 N.	11 E.
Alliance quartz mine and mill site.....	do	20 N.	12 E.
<i>Siskiyou County.</i>			
Oliver W. Goodale et al. placer	do	44 N.	9 W.
S. W. Clary placer.....	Cottonwood.....	47 N.	6 W.
Jerome Beebe placer.....	Scott River	45 N.	10 W.
Maurice Renner placer	Yreka Upper Flats	45 N.	7 W.
<i>Stanislaus County.</i>			
Henry B. Pentland et al. placer.....	Buena Vista	1 S.	12 E.
Milton E. Wheaton et al. placer.....	Gassburg	3 S.	14 E.
Samuel Thompson et al. placer.....	La Grange	3 S.	14 E.

Mining claims approved and patented, &c.—Continued.

Name of mine.	Mining district.	Township.	Range.
<i>Trinity County.</i>			
Edward Enright placer	Coffee Creek	37 N.	7 W.
Morris F. Griffin placer	Eastman	34 N.	8 W.
James T. Anderson et al. placer	Junction City	33 N.	10 W.
Henry Lorenz et al placer	Red Hill	34 N.	11 W.
William Ware placer	Weaversville	33 N.	10 W.
<i>Tuolumne County.</i>			
Herman Wolf et al. placer	Columbia	2 N.	14 E.
George Morgan placer	Gold Spring	2 N.	14 E.
Joseph Aloes placer	Springfield	2 N.	14 E.
Pino Blanco quartz mine	Tuolumne	1 N.	13 & 14 E.
Alameda quartz mine	do	1 N.	14 E.
Mooney quartz mine and mill site	do	1 N.	14 E.
Abraham Nelson placer	do	2 N.	14 E.
Lennan gold quartz mine	do	2 N.	14 E.
Patterson quartz mine and mill site	do	2 N.	14 E.
Valparaiso quartz mine and mill site	do	2 N.	14 E.
Old Smooth Bore quartz mine	do	2 N.	14 E.
Pine Nut quartz mine	do	1 N.	15 & 16 E.
Rifle quartz mine	do	2 N.	15 E.
White quartz mine	do	2 N.	15 E.
Hazel Dell quartz mine	do	3 N.	15 E.
Alexander Martin et al. placer	do	1 N.	16 E.
Consuelo gold quartz mine and mill site	do	1 N.	16 E.
Joseph Lord placer	do	1 N.	16 E.
Ezcelsior quartz mine	do	2 N.	16 E.
Johnson & Bradbury quartz mine	do	2 N.	16 E.
Wheal Perran quartz mine	do	2 N.	16 E.
Platt quartz mine and mill site	do	2 N.	16 E.
Mount Vernon quartz mine	do	2 N.	16 E.
Churchill quartz mine	do	2 N.	16 E.
McAlpine quartz mine and mill site	do	2 N.	16 E.
Felix Obar et al. placer	Table Mountain	2 N.	14 E.
James T. Paddison placer	do	2 N.	14 E.
Waters quartz mine and mill site	Turtletown	2 N.	14 E.
Samuel Brooks placer	Twist Range	2 N.	14 E.
John K. Hunter placer	Yankee Hill	2 N.	14 E.
<i>Yuba County.</i>			
Nevada Mining Company placer	Odd Fellows	19 N.	6 E.
COLORADO.			
<i>Boulder County.</i>			
Mark Hathaway placer	Central	2 N.	71 W.
John Jay lode	do	2 N.	72 W.
Hillsborough lode	Gold Hill	1 N.	71 W.
Sunshine lode	do	1 N.	71 W.
Oceola lode	do	1 N.	71 W.
Grand View lode	do	1 N.	71 W.
Minneapolis	do	1 N.	71 W.
Sunrise lode	do	1 N.	71 W.
Melvina lode	do	1 N.	71 W.
Critic lode	do	1 N.	71 W.
Shadow lode	do	1 N.	71 W.
Black Swan lode	do	1 N.	71 W.
Phebe lode	do	1 N.	71 W.
Denver View lode	do	1 N.	71 W.
New York lode	do	1 N.	71 W.
Tiowaba lode	do	1 N.	71 W.
Chinook lode	do	1 N.	71 W.
Atchison lode	do	1 N.	71 W.
Victoria lode	do	1 N.	71 W.
Black Cloud lode	do	1 N.	{ 71 & 72 W.
Parrallel lode	do	1 N.	72 W.
Mountain Treasure lode	do	1 N.	72 W.
Columbia lode	do	1 N.	72 W.
Gold Hill lode	do	1 N.	72 W.
Tammany lode	do	1 N.	72 W.
Alhambra lode	do	1 N.	72 W.
Eureka lode	do	1 N.	72 W.
No Name lode	do	1 N.	72 W.
Eugene lode	do	1 N.	72 W.
Wynona lode	do	1 N.	72 W.
Monitor lode	Grand Island	1 S.	73 W.
Spencer lode	do	1 S.	73 W.

Mining claims approved and patented, &c.—Continued.

Name of mine.	Mining district.	Township.	Range.
<i>Boulder County—Continued.</i>			
Golconda lode	Grand Island	1 S.	73 W.
Belcher lode	do	1 S.	73 W.
Christopher C. Alvord	do	1 S.	73 W.
Alpha lode	do	1 S.	73 W.
Idaho Extension lode	do	1 S.	73 W.
Jay lode	do	1 S.	73 W.
War Eagle lode and mill site	do	1 S.	74 W.
Fourth of July lode	do	1 S.	74 W.
Second Extension West of Fourth of July lode	do	1 N.	74 W.
East Extension lode	do	1 N.	74 W.
Odd Fellow lode	Sugar Loaf	1 N.	71 W.
Henry Meyring placer	do	1 N.	71 W.
John S. Hill placer	do	1 N.	72 W.
Quaker City lode	do	1 N.	72 W.
Cross lode	do	1 N.	72 W.
Mitchell lode	do	1 N.	72 W.
Aleyone lode	Ward	1 N.	72 W.
Moltke lode	do	1 N.	72 W.
Ward lode	do	1 N.	73 W.
New California lode	do	1 N.	73 W.
Comstock lode	do	1 N.	73 W.
<i>Clear Creek County.</i>			
Fortunatus lode	Argentine	0	0
Argus lode	do	0	0
Garno lode	do	0	0
Brooklyn lode	do	0	0
Aspinwall lode and mill site	do	4 S.	75 W.
General Hayes lode	do	5 S.	75 W.
Wheeling lode	do	5 S.	75 W.
Stover lode and mill site	Cascade	4 S.	73 W.
Mountain Ram lode	Daily	4 S.	75 W.
Starr lode	Geneva	5 S.	75 W.
William F. Doherty placer	Grass Valley	3 S.	73 W.
Charlie Jones lode	Griffith	4 S.	74 W.
Old Whig lode	do	4 S.	74 W.
Beecher Extension lode	do	4 S.	74 W.
Summit lode	do	4 S.	74 W.
Silver Cloud lode	do	4 S.	74 W.
Frank Blair lode	do	4 S.	74 W.
Independence lode	do	4 S.	74 W.
Silver Queen Milling Company mill site	do	4 S.	74 W.
Awanda lode	do	4 S.	74 W.
W. H. White lode	do	4 S.	74 W.
Golden lode	do	4 S.	74 W.
Deming lode	do	4 S.	74 W.
R. A. Miner lode	do	4 S.	75 W.
Charles Desmoineaux mill site	do	4 S.	75 W.
Burleigh Mining Company placer	do	4 S.	75 W.
Norman lode and mill site	do	4 S.	75 W.
Peralto lode	do	4 S.	{ 74 & 75 W.
Tom Corwin lode	do	4 S.	{ 74 & 75 W.
Plebian lode	do	4 S.	74 W.
Polar Star Extension lode	do	4 S.	74 W.
General Scott lode	do	4 S.	74 W.
Eskine McClellan lode	do	4 S.	74 W.
Galic lode	do	4 S.	74 W.
Jordan lode	do	4 S.	74 W.
Henry Allen et al. mill site	do	4 S.	74 W.
Turner lode	do	4 S.	74 W.
Progressive lode and mill site	do	4 S.	74 W.
Peru lode	do	4 S.	74 W.
Tunnel lode No. 10 and mill site	do	4 S.	74 W.
Oneida lode	Griffith or Queens	4 S.	75 W.
Last Chance lode	do	4 S.	75 W.
Charles C. Welsh placer	Idaho	3 S.	73 W.
Veto lode	do	3 S.	73 W.
John Paul Johns lode	do	3 S.	73 W.
Gem lode	do	3 S.	73 W.
Washington lode	Montana	3 S.	74 W.
Snider Gold and Silver Mining Commercial and Manufacturing Company of Colorado mill site.	Morris	4 S.	73 W.
Stork lode	Queens	4 S.	75 W.
Atlantic lode	do	4 S.	75 W.
Dora lode	do	4 S.	75 W.
Lincoln lode	Spanish Bar	3 S.	73 W.
Cook lode and mill site	do	3 S.	73 W.
Edgar No. 2 lode	do	3 S.	73 W.
Lincoln lode	Spanish Bar	3 S.	73 W.

Mining claims approved and patented, &c.—Continued.

Name of mine.	Mining district.	Township.	Range.
<i>Clear Creek County—Continued.</i>			
Summit lode	Spanish Bar	3 S.	73 W.
Hukill lode	do	3 S.	73 W.
Kelly lode	Trail Creek	3 S.	73 W.
Freeland lode	do	3 S.	73 W.
Do	do	3 S.	73 W.
Do	do	3 S.	73 W.
California lode	Upper Union	3 S.	74 W.
Empire lode	do	3 S.	74 W.
Susquehanna lode and mill site	do	3 S.	74 W.
Ben Franklin lode and mill site	do	3 S.	74 W.
Pioneer lode	do	3 S.	74 W.
Benton lode	do	3 S.	74 W.
Andy lode	do	4 S.	74 W.
Providence lode	do	4 S.	74 W.
<i>Gilpin County.</i>			
Saint Louis lode	Central City	3 S.	73 W.
Theo. E. Wheeler et al. mill site	Enterprise	3 S.	73 W.
Chihuahua lode	do	3 S.	73 W.
Margarette Glennan Mammoth Silver lode	do	3 S.	73 & 74 W.
Louis Napoleon lode	Eureka	3 S.	73 W.
Montrose lode	do	3 S.	73 W.
Essex lode	do	3 S.	73 W.
Gunnell lode	do	3 S.	73 W.
Holman lode	do	3 S.	73 W.
Mammoth lode	Gregory	3 S.	77 W.
Foot and Simmons lode	do	3 S.	73 W.
Gregory Second lode	do	3 S.	73 W.
Gregory Extension lode	do	3 S.	73 W.
Pocahontas lode	Illinois Central	3 S.	73 W.
Borton lode	do	3 S.	73 W.
Dexter lode	do	3 S.	73 W.
Gibson lode	do	3 S.	73 W.
Stark County lode	do	3 S.	73 W.
Colorado lode	Independent	2 S.	73 W.
Ophir lode	do	2 S.	73 W.
Crown Point lode	do	2 S.	73 W.
Comstock lode	do	2 S.	73 W.
Savage lode	do	2 S.	73 W.
Perigo lode	do	2 S.	73 W.
Do	do	2 S.	73 W.
Notaway lode	Lake	3 S.	72 & 73 W.
Clay County lode and mill site	do	3 S.	72 W.
Notaway lode	do	3 S.	73 W.
Wilber lode	Nevada	3 S.	73 W.
Gardner Extension lode	do	3 S.	73 W.
Gardner lode	do	3 S.	73 W.
Burroughs Extension west lode	do	3 S.	73 W.
Extension of the Kansas lode	do	3 S.	73 W.
Prize Extension lode	do	3 S.	73 W.
Hubert lode	do	3 S.	73 W.
Kansas lode	do	3 S.	73 W.
Kent County lode and mill site	do	3 S.	73 W.
Mackey lode	Pine	2 S.	73 W.
R. T. Ranney lode	Quartz Hill		
George W. Ellery lode	Quartz Valley	3 S.	73 W.
Black Quartz lode	do	3 S.	73 W.
Cissler lode	Russell	3 S.	73 W.
Dorchester lode	do	3 S.	73 W.
Columbus lode	do	3 S.	73 W.
Gaston lode	do	3 S.	73 W.
Wautauga	do	3 S.	73 W.
<i>Fremont County.</i>			
Senator Extension lode	Hardscrabble	22 S.	71 W.
<i>Lake County.</i>			
Dime lode	California		
Rock lode	do		
Dome lode	do		
Iron lode	do		
Bull's Eye lode	do		
Charles Mater lode	Granite	11 S.	79 W.
<i>Ouray County.</i>			
Ophir lode	Uncompahgre		

Mining claims approved and patented, &c.—Continued.

Name of mine.	Mining district.	Township.	Range.
<i>Park County.</i>			
Stephen H. Pease et al. placer	Beaver Creek	9 S.	77 W.
Ten Forty lode	Buckskin	9 S.	78 W.
Hall and Brunk Silver Mining Company placer	Columbia	8 S.	78 W.
Old North State lode	Consolidated Montgomery		
Coney lode	do		
Polaris lode	do	8 S.	78 W.
Friday lode	do	8 S.	78 W.
Undercliff lode	do	8 S.	78 W.
Iron Dyke lode	do	8 S.	78 W.
Chicago lode	do		
Grand View lode	Montgomery		
Moscow lode	do		
Russia lode	do		
Paris lode	Mosquito	9 S.	78 W.
Mother lode	do	9 S.	78 W.
Cincinnati lode		10 S.	79 W.
<i>San Juan County.</i>			
Peerless lode	Animas		
John H. French et al. placer	Eureka		
<i>Summit County.</i>			
Thomas H. Fuller placer	California		
Thomas H. Fuller placer	Carpenter		
Thomas H. Fuller placer	do		
Boston Silver Mining Company mill site	Snake River	5 S.	76 W.
DAKOTA.			
<i>Lawrence County.</i>			
Durango lode	Whitewood		
Charles Spencer et al. placer	Whitewood placer		
MONTANA.			
<i>Beaver Head County.</i>			
Mark Anthony lode and mill site	Bryant	3 S.	11 W.
Rittenhouse and Louis Philip lodes and mill site	Montana	6 S.	10 W.
<i>Deer Lodge County.</i>			
Independence lode		6 N.	8 W.
Hope lode	Flint Creek	7 N.	13 W.
Comanche lode and mill site	do	7 N.	13 & 14 W.
Dashaway lode	Horton	7 N.	13 W.
Wabus lode	do	7 N.	13 W.
Cliff No. 2 lode and mill site, Lady Byron lode and mill site, Walter B. Dance No. 2 lode, and Horton lode	do	7 N.	13 W.
Magna Charta lode	Summit Valley	3 N.	8 W.
Alice lode	do	3 N.	8 W.
Valdemere lode	do	3 N.	8 W.
<i>Deer Lodge and Lewis and Clarke Counties.</i>			
Penobscot lode		11 N.	6 W.
Snow Drift lode		11 N.	6 W.
<i>Jefferson County.</i>			
Emma Bell lode and mill site	Boulder	6 N.	4 W.
Adolphus lode	do	6 N.	4 W.
Gustavus A. Khern placer, including Khern lode	Palo Alto	9 N.	2 W.
<i>Lewis and Clarke County.</i>			
Sallie Belle lode		9 N.	4 W.
Park lode		9 N.	4 W.
War Eagle lode	Greenhorn	10 N.	5 W.
Lady Washington lode	Ten Mile	8 N.	5 W.
Lulu lode	do	8 N.	5 W.
<i>Madison County.</i>			
King lode	Silver Star	2 S.	6 W.
Lucas lode	Summit	7 S.	3 W.
Boaz lode	Lower Hot Springs	7 S.	3 W.
Galena lode and mill site	Upper Hot Springs	3 S.	1 E.

Mining claims approved and patented, &c.—Continued.

Name of mine.	Mining district.	Township.	Range.
NEVADA.			
<i>Elko County.</i>			
Austin mine	Mineral Hill	26 N.	52 E.
Lelia mine and mill site	Spruce Mountain		
Grecian Bend lode and mill site	do		
Juniper mine	do		
Home Stake lode and mill site	do		
St. John's mine and mill site	do		
Great Expectation mine and mill site	do		
Monarch mine and mill site	do		
<i>Esmeralda County.</i>			
Empire mine	Esmeralda	5 N.	28 E.
Golden Age mine	do	5 N.	28 E.
<i>Eureka County.</i>			
Adams and Farrell and Deep mine	Eureka		
Black Eagle mine	do		
Charleston mine	do		
Colorado mine	do		
Eagles' Nest mine	do		
General Lee mine	do		
Gray Eagle mine	do		
Huguenot mine	do		
Marcellina East mine	do		
Magnet mine	do		
Racine mine	do		
Silver West mine	do		
Silver West Consolidated Mining Company mill site	do		
Williamsburgh mine	do		
<i>Humboldt County.</i>			
Butte mine	Echo		
New York lode	Hot Springs	46&47 N	28 E.
Columbia lode	do	46&47 N	28 E.
Danish Council or Auld Lang Syne mine and mill site	Sierra	33 N.	26 E.
<i>Lander County.</i>			
Eagle mine	Lewis	30 N.	45 E.
Defiance mine	do	30 N.	45 E.
Monitor mine	do	30 N.	45 E.
Wark mine	Reese River		
<i>Lyon County.</i>			
Chromer mine	Devil's Gate and Chinatown	16 N.	21 E.
Sheridan mine	Devil's Gate	16 N.	21 E.
Del Rey mine	Devil's Gate and Chinatown	16 N.	21 E.
<i>Nye County.</i>			
Prussian mine and mill site	Concordia		
Prussian South mine and Jefferson mine and mill site	do		
Tybo Consolidated Mining Company mill site	Tybo		
Tybo Consolidated Mining Company mill site	do		
Crosby mine	do		
<i>Storey County.</i>			
Capital lode	Gold Hill	16 N.	21 E.
Niagara mine	do	16 N.	21 E.
Comstock Front mine	do	16 N.	21 E.
Sadie mining claim and Monte Christo lode	Silver Star	17 N.	21 E.
Piety Hill mine	Virginia	17 N.	21 E.
Quartz mine	do	17 N.	21 E.
Enterprise mine and mill site	do	17 N.	21 E.
<i>Washoe County.</i>			
Paymaster mine	Peavine	20 N.	18 E.
<i>White Pine County.</i>			
Star mine	Cherry Creek		
Chance mine	do		
Sheffield mine	Lincoln		
Washington mine	do		

Mining claims approved and patented, &c.—Continued.

Name of mine.	Mining district.	Township.	Range.
<i>White Pine County—Continued.</i>			
Canaan mine	Lincoln		
Lincoln mine	Newark	19 N.	55 E.
Buckeye State mine	do	26 N.	52 E.
James S. Matson et al. placer	Osceola		
Martin White Mining Company mill site	Ward		
Pleiades mine	do	14 N.	63 E.
Martin White Mining Company mill site	do	14 N.	63 E.
Wiperwill mine	White Pine		
Mammoth mine	do		
Black Rock mine	do		
Mobile and Equality mine	do	16 N.	57 E.
King mine	do	16 N.	57 E.
Haggin and Tevis lode	do	16 N.	58 E.
Hidden Treasure mine	do	16 N.	58 E.
Boston lode	do	16 N.	58 E.
OREGON.			
<i>Baker County.</i>			
Joseph D. Young et al. placer			
M. A. Barber et al. placer	Shasta	13 S.	40 and 41 E.
Joseph Copeland et al. placer	Willow Creek	14 S.	42 E.
Albert H. Brown et al. placer	do	14 S.	42 E.
<i>Coos County.</i>			
E. W. Sprague placer	Hinches	27 S.	14 W.
Thomas H. Walker placer	do	27 S.	14 W.
John Norman placer	do	27 S.	14 W.
<i>Jackson County.</i>			
Peter Burkholter et al. placer	Missouri Flat	37 S.	4 W.
<i>Josephine County.</i>			
William F. Courtney et al. placer	Galice Creek		
Alexander P. Ankeny placer	do		
NEW MEXICO.			
<i>Grant County.</i>			
Peabody mine	Chloride	17 S.	14 W.
Satisfaction mine	Mimbres		
Superior copper mine	Virginia		
UTAH.			
<i>Beaver County.</i>			
Midas mine	Nord Star		
<i>Box Elder County.</i>			
Black Warrior mine	Lucin		
<i>Millard County.</i>			
Prince Albert mine	Gordon		
Mariposa mine	do		
<i>Juab County.</i>			
Midgley mine	West Tintic		
<i>Salt Lake County.</i>			
Baker mine	Big Cottonwood		
Dolly Warden mine	do		
Harkness mine	do		
Little Cora mine	do		
Taylor mine	do		
Umpire mine	do		
Marietta mine	Big and Little Cottonwood		
Chieftain mine	Big Cottonwood		
City Rock mine	Little Cottonwood		
Henry mine	Hot Springs		
Abbey mine	Big and Little Cottonwood		
Cabin mine	Little Cottonwood		
Emily mine	do		
King of the West mine	do		
Superior mine	do		
Swansey mine	do		
Wabonso mine	do		
Ann Kempton mine	West Mountain		
Canby mine	do		
Henry M. mine	do		
Jersey mine	do		
Jordan Silver Mining Company's mine	do		
Live Pine mine	do		
May Flower mine	do		

Mining claims approved and patented, &c.—Continued.

Name of mine.	Mining district.	Township.	Range.
<i>Salt Lake County—Continued.</i>			
Merrimac lode	West Mountain		
Miller mine	do		
Mountain Gem No. 2 mine	do		
Ole Bull mine	do		
Orphan Boy mine	do		
Red Cloud mine	do		
Royal mine	do		
Silver Plume mine	do		
St. John's mine	do		
Sunset mine	do		
Victor mine	do		
Vespasian mine	do		
Horace Greely mine	do		
<i>Summit County.</i>			
Last Chance mine	Uintah		
R. C. Chambers et al. mill site	do		
R. C. Chambers et al. mill site	do		
<i>Summit and Wasatch Counties.</i>			
Pioneer mine	Uintah		
<i>Tooele County.</i>			
First Northerly Extension of the Miners Delight mine	Ophir		
Henriette mine	do		
Indicator mine	do		
J. W. Cooley mine	do		
Severe mine	do		
Silver Treasure mine	do		
Stephen A. Douglas mine	do		
<i>Utah County.</i>			
Bredemeyer No. 2 mine	American Fork		
First West Extension Miller mine	do		
Highland Mary mine	do		
La Belle mine	do		
Live Yankee mine and first westerly extension	do		
Russler mine	do		
Sarah mine	do		
Sarchfield mine	do		
Sunday mine	do		
Tonto mine	do		
Caroline mine	Utah		
<i>Wasatch County.</i>			
Amazon mine	Snake Creek		
Banner mine	Uinto		
WYOMING.			
<i>Carbon County.</i>			
Rawlings mine and mill site	Rawlings Springs	21 N.	87 W.

COAL PATENTS.

	Description.	Township.	Range.
CALIFORNIA.			
Ephraim W. Burr	S. $\frac{1}{2}$ of N. W. $\frac{1}{4}$ and N. $\frac{1}{2}$ of S. W. $\frac{1}{4}$, section 14.	22 S.	13 E.
Francis M. Stone	S. W. $\frac{1}{4}$ of N. E. $\frac{1}{4}$, N. E. $\frac{1}{4}$ of S. E. $\frac{1}{4}$, and S. E. $\frac{1}{4}$ of S. E. $\frac{1}{4}$, section 14.	22 S.	13 E.
COLORADO.			
Michael P. Fox	E. $\frac{1}{2}$ of S. E. $\frac{1}{4}$ of section 16	1 S.	70 W.
OREGON.			
Andrew Nasburg	Lot No. 5 of section 26	25 S.	13 W.
UTAH.			
John Spriggs et al	E. $\frac{1}{2}$ of S. E. $\frac{1}{4}$ of section 8, S. W. $\frac{1}{4}$ of S. W. $\frac{1}{4}$ of section 9, and N. E. $\frac{1}{4}$ of N. E. $\frac{1}{4}$ section 17.	2 N.	5 E.

Mineral claims	542
Coal-land claims	5

Total number of patents issued

547

Section 2320 Revised Statutes, requires that "the end lines of each (mineral) claim shall be parallel to each other." It frequently occurs, by reason of prior locations or adverse ownership of contiguous lands, that, in order to comply with this requirement of law, the mine owner is compelled to relinquish a small portion of his mine with a portion of his surface ground of triangular shape, and the part thus excluded from his survey is not capable of being appropriated by another location because of its triangular shape, which renders it impossible to embrace it all in any survey with parallel end lines.

The owners of such claims are thus put to loss, while no other person is benefited by said requirement, and small tracts are left in a condition to be practically unavailable.

Legislation amendatory of the present law so far as to remedy the evil indicated is desirable, and I respectfully recommend action to that end by the law-making power.

The legal requirement referred to forms the subject in part of the following circular issued by this office, viz:

DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,
Washington D. C., September 13, 1878.

TO UNITED STATES SURVEYORS GENERAL:

By direction of the Secretary of the Interior, under date of 6th instant, you are hereby instructed as follows:

1st. The survey and plat of mineral claims, required by section 2325 Revised Statutes of the United States, to be filed in the proper land office with application for patent, must be made subsequent to the recording of the location of the mine; and when the original location is made by survey of a United States deputy surveyor, such location survey cannot be substituted for that required by the statute, as above indicated.

2d. The surveyor general should derive his information upon which to base his certificate as to the value of labor expended or improvements made from his deputy who makes the actual survey and examination upon the premises, and such deputy should specify with particularity and full detail the character and extent of such improvements.

I desire also to call your attention to section 2320 United States Revised Statutes, referring to vein or lode claims, which requires that, "the end lines of each claim shall be parallel to each other."

It appears that in some instances this explicit statutory requirement has been disregarded. Hereafter you will approve no survey of such claims unless the end lines thereof are parallel to each other.

Promptly instruct your deputy surveyors accordingly.

Very respectfully,

U. J. BAXTER,
Acting Commissioner.

The following decisions affecting mining rights have been made since the last annual report of this office:

DEPARTMENT OF THE INTERIOR,
Washington, February 19, 1878.

SIR: I have considered the appeal of L. W. Wood *et al.*, from your decision of August 18, 1877, rejecting their application for a patent for the Woodville Placer Mine, lot No. 43, township 16 north, range 9 east, M. D. M. Sacramento, Cal.

This tract was located in 1855, and from that time until 1861 worked continuously, and a large sum of money expended in its development.

In 1858 and 1860, C. H. Seymour became, by purchase, the owner of eight-twentieths of said mine, known as the Nebraska claim, which interest he now asserts, together with an additional interest of six-twentieths he obtained from the locators or their grantees.

There is no copy of the local mining laws governing the location and holding of placer claims, in the district wherein the tract in question is situated, filed in the case by which it can be ascertained whether or not the original locators and their grantees have complied with the local laws and regulations of miners in that district so as to entitle them to the right of possession of said tract, as against adverse claimants. If they have thus complied with the local laws, the land is not subject to relocation by other parties until an abandonment by the original locators is established.

In the application of Wood *et al.*, filed February 24, 1874, the applicants assert that they located the tract on or about December 23, 1873; they also assert that they obtained peaceable possession of the land at that time and have remained in possession since.

It is contended by them that the location of the Nebraska claim has been abandoned. On the contrary, Seymour asserts that the original locators and their grantees have not abandoned said claim, but have remained in possession of the same according to local laws and regulations.

There is on file in the case a transcript of the proceedings in the case of C. H. Seymour *vs.* L. W. Wood *et al.*, in the supreme court of California, in which it appears that Seymour brought suit in the district court of the fourteenth judicial district of California to recover possession of eight-twentieths of the ground of the Nebraska mining claim, and judgment was rendered in his favor. The legitimate conclusion to be drawn from this judgment is that the jury found that the original Nebraska location had not been abandoned. In your decision of August 18, last, you held, in substance, that in view of this judgment of the court, the fact was established that the prior location had not been abandoned, and rejected the application of Wood *et al.* for a patent.

It is competent for the department to take the judgment of the district court of California into consideration as evidence on a question of fact, but I am of the opinion that its judgment should not be conclusive. Before a correct decision can be rendered in this case, the facts in relation to the abandonment or non-abandonment of the prior location must be determined.

The evidence now on file is *ex parte*, each claimant to the land asserting his superior right thereto, and, as said right must depend upon the facts, you are instructed to order a hearing to ascertain, if possible, the truth in relation to the abandonment of the Nebraska claim.

If the applicants establish the fact that they obtained peaceable possession of the ground, have remained in possession of the same, and have the right of said possession, their application must be recognized. The claim may be defeated by establishing the facts that the ground was not subject to location, and any party has the right, as a protestant, to submit evidence on that point. Should it be established that, by compliance with the mining laws and customs, and regulations, prior locators have the right of possession, the tract cannot be considered as subject to relocation, and the application must be rejected. The evidence must be confined to the question of abandonment, and the status of the parties will not be changed by the order for a hearing.

I concur with you in the opinion expressed in your letter of March 22, last, that Seymour cannot be regarded as an adverse claimant under the statute, and also in the opinion expressed in your decision of August 18, last, that the publication of the application, although somewhat irregular, was not fatal to the application, as it was a substantial compliance with the law.

A hearing is not expressly provided for in the act of May 10, 1872, but I am clearly of the opinion that it is within your jurisdiction, under the supervisory power conferred upon you by the first section of the act of July 4, 1836, vesting in the Commissioner of the General Land Office control in all matters pertaining to the disposal of the public lands, to order hearings, when it is necessary for the purpose of ascertaining the facts in a given case, without which it is impossible to render an intelligent decision.

Due notice of the hearing should be given to all parties in interest; when the evidence, with the opinion of the local officers thereon, is received, the case should be determined upon its merits.

The papers transmitted with your letter of October 21 last, are herewith returned.

Very respectfully,

C. SCHURZ, *Secretary.*

COMMISSIONER OF THE GENERAL LAND OFFICE.

DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,
Washington, D. C., August 14, 1878.

REGISTER AND RECEIVER,
Carson City, Nev.:

GENTLEMEN: I have carefully considered the application filed in this office December 16, 1875, by the Sierra Nevada Silver Mining Company, to have recalled and canceled the patent issued to the Union Consolidated Silver Mining Company, September 28, 1875, for claim upon the Comstock Lode, in Nevada.

The facts, as appear from the records and files of this office, are as follows, viz: That the premises described in said patent were located by the Union Gold and Silver Mining Company (of which the Union Consolidated Silver Mining Company is the legal successor), June 10, 1859, and record of said location was made July 4, 1859, according

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to the mining laws then in force. Application for patent by said company was filed in your office August 10, 1868. Notice was published in the Daily Territorial Enterprise, a newspaper published at Virginia City, Nev., on the 12th of August, 1868, for the full period of ninety days thereafter, and notices and diagrams were duly posted upon the claim and in the register's office for the period of time prescribed by the statute. On the 27th of May, 1874, the said Union Gold and Silver Mining Company conveyed by deed to the Union Consolidated Silver Mining Company the premises described in said application, which last-named company completed the proofs required, and, on the 17th of August, 1875, made entry of said claim. On the same day the register transmitted the papers to this office, and a patent was issued, September 28, 1875 (as hereinbefore stated), to the said Union Consolidated Silver Mining Company for the premises, and said patent was duly transmitted to the local office, and delivered to the representative of said company.

There is a difference in description and area of the ground as described in the application and embraced in the patent; but upon examination it is evident that there is no difference that would lead to any misunderstanding, so far as the ground in dispute is concerned. Therefore, this difference is not material.

By the application of the Sierra Nevada Silver Mining Company, now under consideration (made to this office, as stated, December 16, 1875), the following facts have been disclosed, viz:

That the Sierra Nevada Silver Mining Company located and recorded under the mining laws June 22, 1859, giving a description which embraced the ground in dispute between the two companies, being the northerly 298 feet of the ground embraced in the patent which has been issued to the Union Consolidated Silver Mining Company.

August 10, 1868, the Sierra Nevada Silver Mining Company filed in your office an application for a patent for the premises located, the description embraced therein including the ground in dispute.

This was the same day that the application was filed by the Union Gold and Silver Mining Company, and the application of the Sierra Nevada Silver Mining Company bears a minor number to that of the other application, and although filed upon the same day, seems in point of time to be the prior application.

On the 13th of November the Union Gold and Silver Mining Company instituted an action of trespass in the court, and applied for an injunction against the Sierra Nevada Silver Mining Company, but this action was never prosecuted to a final issue.

The Sierra Nevada Silver Mining Company, under date of April 24, 1874, filed in your office an adverse claim and protest, and instituted suit against the Union Gold and Silver Mining Company May 22, 1874. This suit has not reached a final determination, but an injunction *pendente lite* was issued, restraining each of the defendants from taking any further steps toward the perfection of the application for patent. This injunction has never been dissolved, but remains in force.

The ground in dispute was actually occupied by the Sierra Nevada Silver Mining Company from 1866 to 1868, its hoisting works having been erected thereon and mining explorations of great extent having been carried on.

Some of the foregoing facts are evidenced by *ex parte* testimony only, but it is thought they will not be disputed, and if they are, the verity of any or all can be ascertained.

The counsel for applicant allege that "no protest or adverse claim has ever been filed against said application, nor have the necessary steps been taken to complete the application, for the reason, as alleged by the company, that this could not properly be done before the settlement of the controversy as to the 298 feet in the courts.

It is set forth in the adverse claim and protest filed April 24, 1874, above referred to, and also in the application under consideration, that the neglect to file a protest within the period of publication, and up to the date of the protest, was on account of a conspiracy between Robert Apple, then superintendent of the Sierra Nevada Silver Mining Company, and the officers of the applicant. This is denied by Apple and others.

The register has been superseded, and I shall not comment upon his action in withholding the papers adverse to the issue of patent, further than to remark that he was aware of the conflict between the claims, and while he states that service was not made upon him in the case of the suit brought by the Sierra Silver Mining Company, he does not say that he was not aware of its pendency, and under the circumstances it was unquestionably his duty to have transmitted all the papers, whether filed by the applicant or adverse claimant, that they might have been considered before the patent issued.

Adverse claims are referred to in the act of July 26, 1866, three times.

In section 2 claimant may file and receive patent "to whose possession there is no controversy or opposing claim"; in section 3, where the survey is to be made, "if no adverse claim shall have been filed"; and in section 6 all proceedings shall be stayed whenever any "adverse claimants" shall appear before the approval of the survey.

This law contains no provision as to the form or manner of presenting or filing adverse claims.

The first general circular issued by this office to registers and receivers in regard to

this act was dated January 14, 1867. In it the sixth section of the act is quoted without comment; the supplemental circular thereto of June 25, 1867, contains the following:

"Third. Should a party appear as an adverse claimant as contemplated by the sixth section of the act, you will require such person to show by proof the claim or interest he may have in the mine, and should the same be satisfactory to you, all further proceedings will be stayed, until a final settlement and adjudication shall be had in the courts. But in case the adverse claimant after proceedings have been stayed shall fail to institute action in the courts, either pending or at the next ensuing session, with a view to the final adjustment of the claims, you will proceed with the case as if no objections had been filed."

These were the instructions which had been issued when the applications were made by the respective parties in 1868.

For reasons which are obvious, the same technical observance in pleading has not been required before the local land offices as is customary in courts, where rules are prescribed in accordance with law or custom, and the attorneys are held to a compliance therewith, and with the requirements of legal authorities upon the subject, by judges learned in the law, and where there is evident good faith manifested the ruling of this office should be liberal, and it should be the aim to give all parties interested an opportunity to assert their rights, and not deprive any one of this privilege by a purely technical ruling. Such action, therefore, as gave notice to the local officers of a conflict in claims, and clearly defined such claims, would seem to me to be a sufficient compliance with the act of 1866 to entitle the party asserting the claim to consideration as an adverse claimant under said act. The description of the premises claimed was distinctly set forth in both applications and accompanying diagrams. I am of opinion therefore that each of the parties had taken such steps in 1868, and prior thereto, as should be regarded as an adverse filing in relation to the application of the other.

That the register had sufficient knowledge of the claim of the Sierra Nevada Silver Mining Company to put him upon full inquiry when he permitted the entry by the Union Consolidated Silver Mining Company, August 17, 1875, is evident from the fact that upon the diagrams accompanying that entry the northerly 298 feet of the premises patented has marked upon it, "Sierra Nevada and Union disputed ground," and in letter of 4th of February, 1876, in forwarding the protest and adverse claim of the Sierra Nevada Silver Mining Company, filed April 24, 1874 (in compliance with directions from this office), he acknowledges that he was aware of its existence, but did not regard it as having been filed in time.

In regard to this protest, if it had been filed within ninety days after the application of the Union Gold and Silver Mining Company it would constitute as full a compliance with the law and all instructions as to adverse filings as could practically be made. Prior to the decision of the Secretary of the Interior of March 14, 1872, in the case of the "Flag-staff Lode," in Utah, it had been uniformly held that adverse filing could be made at any time prior to the approval of the survey. The Secretary gives the following reasons in support of his decision in the "Flag-staff" case, that "an adverse claim might be filed, which of itself would suspend the approval of the survey until it was adjudicated. Another claim might be filed before that was disposed of, or the survey approved, and thus adverse claims might lap over each other, until it would be almost an impossibility for a claimant to be in a condition where he could demand an approval of his survey and the issuing of his patent."

This reasoning does not apply to the action of the Sierra Nevada Silver Mining Company. This company, as alleged by counsel, did not complete its application because it was awaiting the result of the suit instituted by the Union Gold and Silver Mining Company to decide the title to the ground in dispute, and had, during this time, the ruling of the department down to March 14, 1872, giving assurance that if all proper steps had not been taken an "adverse filing" could be made at any time before the approval of the survey. The filing by the Sierra Nevada Silver Mining Company of April 24, 1874, may come within the letter, but certainly not within the spirit, of the decision in the "Flag-staff" case.

This filing was made and the suit instituted apparently as an earnest effort on the part of the company to assert their claim, it appearing that the suit on the part of the Union Gold and Silver Mining Company was not being prosecuted to a final determination.

In view, therefore, of all these facts, which are *now* before this office, I am satisfied that all proceedings should have been stayed until final settlement and adjudication in the court of the rights of possession to the disputed ground, and not until then should the patent have been issued.

If the patent were in the possession of this office I should direct its cancellation, but having been delivered, it cannot now be canceled or annulled by the department. (13 Opinions Attorneys-General, 456; 13 Peters, 436; 2 Wallace, 525.)

The honorable Secretary of the Interior, in his decision of the 12th of July, 1876, in the case of John W. Harbinson *et al.*, speaking of the issue of a second patent, says:

"I am of the opinion that no such patent should be issued except when expressly provided for by law, or in exceptional cases, when the party entitled thereto would be practically remediless without it. If it satisfactorily appears that a patent has been issued through inadvertence, or by the misconstruction of the law, by any of the officers of the government, its return should be promptly demanded, and if the demand is refused proceedings should be immediately instituted to procure its cancellation.

"The courts afford ample facilities for such proceedings, and are the proper and only tribunals for the final determination of such questions. I therefore direct that in this case, and in all cases where you become satisfied that patents have been erroneously issued, you request the patentee to return the same, and if he refuses or neglects so to do after reasonable notice, you will report such refusal or neglect to me, that the Department of Justice may be requested to institute proceedings to have said patents canceled."

You will request the proper representative of the patentee to surrender the patent to you that it may be returned to this office for cancellation. If this request is refused, I shall recommend that the Sierra Nevada Company be authorized to institute proceedings in the proper United States court, in the name of the United States, to test the validity of the patent issued to the Union Consolidated Mining Company.

Make the request for surrender of patent without delay, and as soon as a reply is received, or at the end of thirty days from receipt hereof, report your action to this office.

Very respectfully,

J. A. WILLIAMSON,
Commissioner.

DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,
Washington, D. C., September 28, 1878.

REGISTER AND RECEIVER, *Helena, Mont.:*

GENTLEMEN: I am in receipt of receiver's letter of 1st ultimo, transmitting mineral application No. 613, made in your office May 21, 1878, by the Hope Mining Company, for the "Potosi Lode," being Lot 57, in township 7 north, 13 west, together with protest by James K. Pardee against entry, and asking that the application and survey be canceled.

Mr. Pardee claims and represents no adverse interest, but bases his protest on the following grounds, to wit:

1st. That he finds on examination of the certified copy of the location, and of the official plat and field notes of survey, that said claim was located with surface ground largely in excess of the amount allowed by law, and that the plat shows that the claim was surveyed with a width of surface on the north side of about 30 feet in excess of 300 feet.

2d. That, from an examination of said notice of location, it is evident that said Potosi Lode has been floated a distance of about 61 feet eastwardly from the position in which it was staked at the time of its original location, no evidence appearing to have been taken that the stake found by the deputy surveyor at the southeast corner was the identical stake originally patented and given in said notice.

3d. Affiant believes said notice of location is void for uncertainty, for the reason that no description of the kind or size of the stakes used or the marks placed thereon is given in said notice of location, "for which reason the said claimants, in the absence of proof to the contrary, could call anything that happened to be stuck in the ground their boundary stake."

On said first objection, I find that the width on the northerly side of the discovery shaft is about 330 feet, and the width on the southerly side about 125 feet.

The surveyor general, under date of 9th ultimo, informed this office that said survey should not have been approved, for this reason, and that he did not discover the error until the 29th of July last.

The law (sec. 2320 U. S. Revised Statutes) provides that "no claim shall extend more than three hundred feet on each side of the middle of the vein at the surface."

When the vein outcrops at the surface there can be no question as to the point from which this lateral measurement must begin.

When the discovery shaft develops the vein at some distance below the surface and the locator does not determine by any further prospecting that the nearest actual surface point is elsewhere, and the fact does not otherwise appear, I am of the opinion that the point of the vein so discovered must be assumed to be the middle of the vein, and the lateral measurements be calculated therefrom.

The law is mandatory, and contemplates that but 300 feet of surface ground shall be taken on either side of the vein; and a compliance with the law necessitates the fixing of the point from which these measurements shall begin. I think the rule above indicated is the only one practicable.

In this case the width of the claim on the northerly side is more than 300 feet from the discovery opening; and the plat and field notes has this day been returned to the surveyor general for correction in said particular.

Referring to the second objection by protestant, I find that the location notice describes the claim as follows: "Beginning at M. C. stone No. 3 on the Hope Lode, and running W. 73° E. along the north line of said Hope Lode 795 feet to a stake; thence W. 68° W. 953 feet to a stake; thence S. 73° W. 89.4 feet to a stake; thence south $66^{\circ} 30'$ W. 1,343 feet to a stake; thence south 68° E. 841 feet to a stake; thence W. $66^{\circ} 20'$ E. 720 feet to the point of beginning. Discovery stake is 140 feet N. E. from corner-stone No. 3 of the Hope Lode, and 125 feet north from north line of Hope Lode." This location was made February 12, 1876.

The field notes of the survey presented for patent show that the surveyor began at the same point as did the location; that he ran S. $66^{\circ} 30'$ W. (instead of east, as in the location), along the north boundary of the Hope Lode claim "to a post marked for southwest corner of Potosi Lode"; thence N. 68° W. (the same courses given for these two lines in the location) to a point from which northwest corner of this claim bears N. 68° west 238 feet distant. Bearing in mind that the width of this claim as surveyed for patent is much less than as located, and that the northwest corner here referred to is the northwest corner of the location; that the westerly line bears N. 68° W. in both location and survey for patent, and that said line continued, as above shown in said survey, *in the same direction* intersects at the northwest corner of the location, it is evident that the westerly line of location and the westerly line of survey for patent coincide and are one and the same line, for, when extended 238 feet in the same direction beyond the northwest corner of said survey, they are both found at the same point. Hence I conclude that the stake found by the surveyor at the southwest corner, and described by him as "a post marked for southwest corner of Potosi Lode," was the location corner post. The measurement eastwardly does not give a greater linear distance than that given in the location, and I therefore conclude that the survey cannot extend eastwardly beyond the location.

On the third point of objection, it is only necessary to say that it does not apply to this case. As shown above the southerly and westerly boundary lines of survey are proven to have been the location boundary lines—the first being a line common to two surveys, and the second being proven, as aforesaid, to coincide with the westerly location line. The northerly boundary line is within the location, and the easterly boundary is by measurement less than that given in the location. There is no adverse interest involved, and no averment is made that the boundary stakes are not those marking the location. I therefore decide that the applicant can proceed for patent after the surveyor general shall have corrected the survey and plat, as aforesaid, to comply with the law in respect to the lateral measurement on the northerly side of the discovery opening.

You will be hereafter governed in your official action by the rule herein stated with regard to the width of lode claims. Give notice to all parties, and acknowledge receipt hereof. The papers are herewith returned.

Very respectfully,

J. A. WILLIAMSON,
Commissioner.

The work of the special division of this office having charge of business arising under the laws for the disposal of mineral lands during the fiscal year ending June 30, 1878, and its condition at the beginning of the current year, are thus stated:

Mineral entries made from July 1, 1877, to June 30, 1878	642
Patents issued.....	547
Mineral lands sold (acres)	21, 637. 37
Mineral contests received.....	249
Mineral contests disposed of	71
Whole number mineral entries on file and undisposed of.....	1, 114
Agricultural entries awaiting decision on the character of the land.....	1, 450
Applications to enter lands withdrawn as mineral on which hearings have been held and now awaiting action	435
Contests between adverse mineral claimants.....	65
Total number of cases awaiting action	3, 064
Letters received.....	2, 911
Letters written.....	2, 051
Covering pages in letter record	1, 738
Covering pages in patent record	4, 064

Swamp and overflowed lands.

Under the acts of Congress granting swamp and overflowed lands to the several States, 905,697.98 acres have been claimed during the past fiscal year and the claims reported to this office, making the total amount selected to the end of said year 68,516,635.26 acres. One hundred and seventy-seven thousand six hundred and thirty-seven and thirty-one hundredths acres were formally approved, making a total amount of 51,487,910.51 acres approved since the passage of the acts.

Two hundred and forty-seven and ninety-six hundredths acres were approved to the State of Louisiana under the act of March 2, 1849, which approval has the force and effect of a patent, making the entire amount approved to the State under said act 8,291,225.31 acres.

Two hundred and two thousand six hundred and seventy-nine and eighty-nine hundredths acres have been patented under the act of September 28, 1850 (Rev. Stat., secs. 2479, 2480, and 2481), making the whole amount patented under said act 39,408,159.31 acres.

In addition to the lands in place approved and patented as above stated, 5,331.26 acres have been patented pursuant to the provisions of the act of March 2, 1855 (Rev. Stat., sec. 2482), as indemnity for swamp lands entered with warrants or scrip, increasing the amount thus patented to 419,534.41 acres.

The aggregate amount of land definitely disposed of by approval and patents under the several acts from the passage thereof to the close of the fiscal year is 48,118,919.03 acres.

The portion of the official work to be spoken of under this head is considerably in arrears, in consequence of the insufficiency of the clerical force which can be spared from other pressing business to bring it up. I append a statement, showing what was done in connection therewith during the fiscal year and the present condition of the work in the division having it in charge:

Number of letters received.....	1,037
Number of letters written.....	1,087
Number of pages of letter record filled.....	891
Number of lists approved.....	32
Number of pages in same.....	98
Number of pages in certified copies of approved lists prepared and transmitted to the governors of the several States and the district land offices.....	198
Number of patents executed.....	30
Number of pages of patent record filled.....	86
Number of pages of swamp-selection records filled.....	396
Number of tracts in regard to which evidence has been examined in contests between individuals and the swamp-land claimants.....	272
Number of such tracts found "not swamp" and the claim rejected.....	267
Number of pages of evidence examined in such cases.....	608
Number of tracts in regard to which evidence has been examined in contests between railroads and the swamp-land claimants.....	82
Number of such tracts found to be "not swamp" and the claim rejected.....	53
Number of pages of testimony examined in such cases.....	740
Number of tracts examined by the field notes of survey to determine their character.....	5,166
Number of such tracts found "not swamp".....	54
Number of tracts upon which claims for indemnity have been adjusted.....	82
Number of pages of evidence examined in indemnity cases.....	1,120
Number of certified copies prepared for individuals.....	60

Except correspondence, the work of the division is, and has been for several years, considerably in arrears. The portion most in arrears includes examination of claims for indemnity, in which the evidence has been filed, some of it a number of years; examination and adjustment of claims for lands in place in the several States, amounting to several

millions of acres, already reported and entered on the records; examination of contested cases, in some of which the testimony is quite voluminous; examining and noting on the records of a number of lists of lands selected and reported from Minnesota within the past year, and preparation of patents. To bring the work in the division now in arrears up to date would require the labor of the present force for several years, if employed upon that alone.

I append several decisions rendered by the department during the last fiscal year in cases arising under the laws granting swamp and overflowed land to the States:

A homestead entry is not a claim recognized by the swamp act of 1860.

The action of the legislature of Minnesota, approved by the chief executive of the State, was, as far as the power existed in the grantee, a selection by her of the lands granted, and this selection was made within the time prescribed by the act of March 12, 1860.

The failure of the officers of the Interior Department to perform the required act of segregation and listing of swamp lands enuring to the State of Minnesota does not defeat or forfeit the claim of the State thereto.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., December 4, 1877.

SIR: I have considered the questions presented in your letter of September 4, 1877, in connection with the claim of the State of Minnesota to the S. E. of S. W. $\frac{1}{4}$ of section 3, township 115, range 30 west, Redwood Falls land district, under the swamp grant.

The first point for investigation in the consideration of the questions presented is in relation to the selection of the tract, and in order to arrive at a correct understanding of the same, a history of the transaction must be given.

The first and second sections of the act of September 28, 1850, are as follows:

"That to enable the State of Arkansas to construct the necessary levees and drains to reclaim the swamp and overflowed lands therein, the whole of those swamp and overflowed lands made unfit thereby for cultivation which shall remain unsold at the passage of this act shall be, and the same are hereby, granted to said State.

"SECTION 2. That it shall be the duty of the Secretary of the Interior, as soon as may be practicable after the passage of this act, to make out an accurate list and plats of the lands described as aforesaid and transmit the same to the governor of the State of Arkansas, and at the request of said governor cause a patent to be issued to the State therefor; and on that patent the fee simple to said lands shall vest in the said State of Arkansas, subject to the disposal of the legislature thereof: *Provided, however,* That the proceeds of said lands, whether from sale or by direct appropriation in kind, shall be applied exclusively, as far as necessary, to the purpose of reclaiming said lands by means of the levees and drains aforesaid."

It is herein stated what lands are granted, the manner of selecting the same, and the method of conveying title to the State. It has been repeatedly held that the act in question made a grant *in presenti*.

The act of March 12, 1860, is as follows:

"That the provisions of the act of Congress entitled 'An act to enable the State of Arkansas and other States to reclaim the 'swamp lands' within their limits,' approved September twenty-eight, eighteen hundred and fifty, be, and the same are hereby, extended to the States of Minnesota and Oregon: *Provided,* That the grant hereby made shall not include any lands which the government of the United States may have reserved, sold, or disposed of [in pursuance of any law heretofore enacted] prior to the confirmation of title to be made under the authority of the said act.

"SECTION 2. That the selection to be made from lands already surveyed in each of the States, including Minnesota and Oregon, under the authority of the act aforesaid and of the act to aid the State of Louisiana in draining the swamp lands therein, approved March second, one thousand eight hundred and forty-nine, shall be made within two years from the adjournment of the legislature of each State at its next session after the date of this act, and as to all lands hereafter to be surveyed, within two years from such adjournment, at the next session after notice by the Secretary of the Interior to the governor of the State that the surveys have been completed and confirmed."

It will be observed that no specific provisions are indicated as to the manner of selection, although the time within which said selections shall be made is fixed. A correct interpretation of the second section of the act, however, in my opinion, establishes the manner in which the selection should have been made, viz, it should have been done as provided in the act of September 28, 1850; and while under the administration of the law by your office different methods of selection appear to have been practiced, each may have, in effect, resulted in the preparation, by the Secretary of the Interior, of a list of lands designated as swamp.

Under date of May 21, 1860, your office addressed a communication to the Governor

of Minnesota stating that the choice of one of two methods for the adjustment of the swamp grant had been extended to the several States entitled to the benefits of the same, and that a like privilege would be extended to Minnesota. The two methods designated were: 1st, That the State should abide by the field notes of the surveys as designating the lands which were to be considered swamp; or 2d, In the event of their non-acceptance of these notes as the basis of the adjustment of the grant, that the States should furnish evidence of the character of the lands claimed to be embraced therein. Of these methods, the States of Michigan and Wisconsin chose the former; the other States entitled to the benefits of the act the latter.

After some correspondence between your office and the State authorities in relation to the subject, causing much delay, the question was finally settled by an act of the legislature of Minnesota, approved March 10, 1862, wherein it was provided that "the surveys on file in the surveyor general's office are hereby adopted as the basis upon which will be accepted the swamp lands granted to the State by act of Congress of March twelfth, eighteen hundred and sixty."

The governor of the State in communicating this action to the department employed the following language: "I have therefore to inform you that the State of Minnesota will, under the act of Congress of March 12, 1860, entitled 'An act to extend the provisions of "An act to enable the State of Arkansas and other States to reclaim the swamp lands within their limits" to Minnesota and Oregon, and for other purposes,' abide by the field notes of the government surveys, designating the lands, &c., and I have therefore to ask that you will direct immediate steps to be taken to confirm in Minnesota the title to these lands."

In consequence of this decision, instructions as to the system to be pursued in making selections and in regard to the character of the lands granted, and the method of ascertaining the same, were given to the surveyor general, and he was instructed to prepare lists of the tracts found to be swampy, and inuring to the State under the grant; to retain one copy in his office, to transmit one to your office and one to the local office. He was instructed to exclude from said list the tracts disposed of by the government (under any law enacted prior to March 12, 1860), prior to the confirmation of title, as provided in the first section of the act of 1860.

The surveyor general of Minnesota, under date of November 30, 1863, certified that the tract in question, viz, the southeast quarter of the southwest quarter of section 3, township 115, range 30 west, had been selected under the instructions given by the General Land Office, and that the same was swamp and overflowed within the meaning of the act of September 28, 1850, and as such inured to the State of Minnesota. Under date of June 26, 1856, your office included the tract in a list of swamp and overflowed lands selected as inuring to the State of Minnesota under the provisions of the act of Congress approved March 12, 1860, submitted for approval, and on the 30th of said month the Secretary of the Interior approved the same, subject to any valid legal right that might exist to the tracts.

On the 31st of July, 1865, the governor requested a patent to issue for the lands included in the list above mentioned, and patent issued, August 2, 1865, for all the tracts to which no adverse claim existed, under the rules of your office. In this connection the homestead entry for said tract made July 4, 1864, must be considered, as, under the rule then in force in your office, its existence was the cause of the non-issue of patent to the State.

The first section of the act of 1860 provides that the grant thus made shall not include any lands which the Government of the United States may have reserved, sold, or disposed of (in pursuance of any law heretofore enacted), prior to the confirmation of title to be made under the authority of said act. The claim initiated under the homestead entry was based upon the provision of a statute enacted May 20, 1862, and was not a claim recognized by the act of 1860; hence the action of your office in refusing a patent, by reason of said entry, was unwarranted and unauthorized by law. The subsequent homestead entry made September 1, 1866, upon the cancellation of the prior one, was also illegal, and its consideration does not enter into the question now before me, as it cannot defeat a legal right which accrued prior to its date.

Upon this question, Secretary Thompson, under date of October 24, 1858, used the following language: "When selections under the act of September 28, 1850, have been approved and certified, the duty of designating the granted lands, imposed by law on this department, has been discharged, the acts done cannot be recalled or annulled, and the State has a right to demand a patent for the tracts of land embraced in any certified list that has been delivered to the governor." (1 Lester, 563.) The same rule should apply in the case of selections under the act of 1860, except where lands had been disposed of as provided in section 1 of said act.

The action of the legislature of Minnesota, approved by the chief executive of the State, was, as far as the power existed in the grantee, a selection by her of the lands granted. All that remained to be done in the premises, where the lands had been surveyed prior to March 12, 1860, was merely the clerical duty of preparing the lists of lands thus inuring to the State, and the issuing of a patent for the same, duties that

in the ordinary course of the administration of the laws pertaining to our land system would take much time.

The tract in controversy was surveyed prior to March 12, 1860. The first session of the legislature of Minnesota held after the passage of the granting act adjourned March 7, 1861. The selection of the lands, as far as it was in the power of the grantee to act, was made in March, 1862, less than two years from the adjournment of the first session of the legislature; and to hold that by reason of the failure of the officers of this department to perform the act of segregation, or of listing the lands inuring under the grant, that the claim of the State was forfeited, or its right defeated, would, in my opinion, be an unwarranted and unjustifiable assumption of power, not authorized by law, or based upon principles of reason or justice. By its own action the government is estopped from asserting such an authority.

This Department invited the State to adopt a certain method of ascertaining what lands inure to her under a grant. The State, having complied with the suggestion, exhausted her power to act in the premises, and the department is barred from asserting that, because of its laches and delay in identifying the lands, the selection has not been made within the prescribed time. The government is not in a position to raise that question.

For these reasons it must be held that the tract in controversy inured to the State; that she was entitled to patent when the same was requested by the governor, July 31, 1865.

In my opinion, the principles herein announced will apply to an adjustment of the grant under the provisions of section 2490 of the Revised Statutes, as the State and the government retain the same relation to each other as they occupied prior to the adoption of said section.

You are instructed, however, to exercise diligence in notifying the governor of the State of the survey of the public lands as soon as the plats are filed in your office. The officers in charge of the selection of lands should be held to a strict accountability, and the list of swamp lands inuring to the State under the grant should be prepared within the two years mentioned in the act.

In the case submitted, patent should issue to the State for the tract, and the principles announced in this letter should govern in the adjustment of the swamp grant to the State of Minnesota.

The instructions given in your letter of December 26, 1876, addressed to the surveyor general of Minnesota, are approved.

Very respectfully,

C. SCHURZ, *Secretary.*

The COMMISSIONER OF THE GENERAL LAND OFFICE.

At the hearing held in the case of the Central Pacific Railroad *vs.* State of California, the claim of the State to certain tracts was rejected either because the State failed to show that said lands were swampy or no testimony was offered as to their swampy character.

All public land in California that was actually swampy inured to the State September 28, 1850, and a subsequent disposition thereof by the government, either by grant to a railroad company or sale to individuals, could not divest the State's title. The State had the right to present testimony as to the character of each tract mentioned in the published notice of the investigation in this case.

Lands within the boundaries of an alleged Mexican or Spanish grant which was *sub judice* at the time the Secretary of the Interior ordered a withdrawal of lands along the route of the road are not embraced in the grant to the company.

Lands lying within the claimed limits of a Spanish or Mexican grant, which was subsequently adjudged by the courts to be invalid, inured to the State under the swamp grant of September 28, 1850: *Provided*, The State proves they were swampy at the date of the grant.

Property is the right and interest which a man has in lands and chattels to the exclusion of others.

The second clause in the fourth section of the act of July 23, 1866, confirms absolutely to the State all lands *not in a state of reservation* which had been segregated by her prior to July 23, 1866, if the State surveys were made on the rectangular system, whether the lands had been surveyed by the United States or not, or whether they were swampy or dry lands, provided no valid pre-emption or homestead claim or other right had been acquired by any settler as provided in the first section of the act.

DEPARTMENT OF THE INTERIOR,

Washington, D. C., December 21, 1877.

SIR: I have considered the testimony taken before the surveyor general of California, in April, 1874, at a hearing held at the instance of the State of California, to determine whether certain lands claimed by said State as swampy and overflowed, but returned on the official plats of township 16 N., range 2 W., and 17 N., 2 W., in the Marysville land district, as dry lands, are of the character claimed by the State.

These lands were formerly within the claimed limits of the Manuel Diaz Mexican grant, which was finally rejected by the Supreme Court of the United States March 3, 1873. They are also within the granted limits of the Central Pacific Railroad Company, successors to the California and Oregon Railroad Company. The withdrawal for said road was made by letter from your office, dated October 29, 1867, received at the local land office November 25, 1867.

Township 17 N., range 2 W., was surveyed in the field in April, 1867, and the plat thereof approved by the surveyor general November 9, 1867; and filed in the local office

February 4, 1868. This plat was suspended January 22, 1873, on account of conflict with the Diaz grant, and was not restored until October 1, 1873.

Township 16 N., range 2 W., was surveyed in the field in July, 1871, and the plat approved by the surveyor general August 23, 1871, and filed in the local office September 25, 1871. This plat was also suspended January 22, 1873, on account of conflict with the Diaz grant, and not restored until October 1, 1873. Part of the lands in 17 N., 2 W., were returned as swampy and overflowed on the official plat of that township and were certified to the State September 20, 1870, and are not, therefore involved in this case.

In the year 1861, the State caused segregation surveys to be made of the lands in these townships, which were claimed by her under the swamp grant of September 28, 1850, and these surveys included large tracts which are returned as dry lands on the United States official surveys. The State filed objections to the government surveys with the surveyor general on October 20, 1871, as provided for in the last clause of the 4th section of the act of July 23, 1866, and a hearing was set for November 13, 1872. On the date last mentioned objection was raised to the right of the State to swamp lands within the limits of a private grant, the title to which was still in litigation; and the surveyor general thereupon postponed further action, to await instructions from the Commissioner of the General Land Office.

On January 9, 1873, the surveyor general was directed by your office to suspend the hearings in all cases where the title to the lands was in litigation, and proceedings in this case were consequently suspended until April 7, 1874, when the hearing was held in the town of Colusa, Cal., which is situated near the lands in dispute.

In the mean time, viz, on March 5, 1872, the following lands in 17 N., 2 W., were patented to the Central Pacific Railroad Company:

All of fractional section 15.

S. E. $\frac{1}{4}$ of N. W. $\frac{1}{4}$, W. $\frac{1}{2}$ of N. E. $\frac{1}{4}$, N. E. $\frac{1}{4}$ of N. E. $\frac{1}{4}$, W. $\frac{1}{2}$ of S. E. $\frac{1}{4}$, and S. W. $\frac{1}{4}$ of section 27.

All of section 29.

W. $\frac{1}{2}$ of W. $\frac{1}{2}$, N. E. $\frac{1}{4}$ of N. W. $\frac{1}{4}$, S. E. $\frac{1}{4}$ of S. W. $\frac{1}{4}$, and S. $\frac{1}{2}$ of S. E. $\frac{1}{4}$ of section 33.

On August 28, 1874, your predecessor rendered a decision on certain preliminary questions raised by counsel for the State, and an appeal was taken on behalf of the State from this decision. On February 27, 1875, counsel for the State asked leave to withdraw their appeal without prejudice to any legal rights which their client might possess, in order to have the testimony examined and the case decided on its merits by your office, and this request was granted by my predecessor, Hon. C. Delano, on March 1, 1875.

On June 28, 1875, the case was examined and decided by your office on its merits, and the following tracts were found to be so swampy or overflowed as to be unfit for successful cultivation in a majority of seasons without reclamation, viz:

N. $\frac{1}{2}$ of N. W. $\frac{1}{4}$, sec. 4, tp. 16 N., range 2 W.

S. W. $\frac{1}{4}$ of S. W. $\frac{1}{4}$	" 4,	"	"
E. $\frac{1}{2}$	" 5,	"	"
E. $\frac{1}{2}$ of N. W. $\frac{1}{4}$	" 5,	"	"
E. $\frac{1}{2}$ of S. W. $\frac{1}{4}$	" 5,	"	"
S. W. $\frac{1}{4}$ of S. W. $\frac{1}{4}$	" 5,	"	"
E. $\frac{1}{2}$ of N. E. $\frac{1}{4}$	" 7,	"	"
S. E. $\frac{1}{4}$ of S. W. $\frac{1}{4}$	" 7,	"	"
S. E. $\frac{1}{4}$	" 7,	"	"
All of	" 8,	"	"
W. $\frac{1}{2}$ of	" 9,	"	"
All of	" 17,	"	"
N. $\frac{1}{2}$ of	" 18,	"	"
N. $\frac{1}{2}$ of	" 20,	"	"
N. E. $\frac{1}{4}$ of S. W. $\frac{1}{4}$	" 20,	"	"
S. E. $\frac{1}{4}$ of	" 20,	"	"
W. $\frac{1}{2}$ of	" 21,	"	"
S. E. $\frac{1}{4}$ of	" 21,	"	"
W. $\frac{1}{2}$ of N. E. $\frac{1}{4}$	" 21,	"	"
S. $\frac{1}{2}$ of S. W. $\frac{1}{4}$	" 22,	"	"
N. $\frac{1}{2}$ of N. W. $\frac{1}{4}$	" 27,	"	"
S. W. $\frac{1}{4}$ of N. W. $\frac{1}{4}$	" 27,	"	"
W. $\frac{1}{2}$ of S. W. $\frac{1}{4}$	" 27,	"	"
E. $\frac{1}{2}$ of	" 28,	"	"
N. W. $\frac{1}{4}$ of	" 28,	"	"
E. $\frac{1}{2}$ of N. E. $\frac{1}{4}$	" 29,	"	"
N. W. $\frac{1}{4}$ of N. E. $\frac{1}{4}$	" 29,	"	"
N. E. $\frac{1}{4}$	" 33,	"	"
S. $\frac{1}{2}$ of N. E. $\frac{1}{4}$	" 34,	"	"
W. $\frac{1}{2}$ of N. W. $\frac{1}{4}$	" 34,	"	"

S. E. $\frac{1}{4}$ of N. W. $\frac{1}{4}$ sec. 34, tp. 16 N., range 2 W.		
N. E. $\frac{1}{2}$ of S. W. $\frac{1}{4}$ " 34,	"	"
S. E. $\frac{1}{4}$ " 34,	"	"
W. $\frac{1}{2}$ of S. W. $\frac{1}{4}$ " 35,	"	"
S. E. $\frac{1}{4}$ of S. W. $\frac{1}{4}$ " 35,	"	"
N. W. $\frac{1}{4}$ of N. W. $\frac{1}{4}$ " 5,	"	"
S. W. $\frac{1}{4}$ of N. E. $\frac{1}{4}$ " 7,	"	"
N. $\frac{1}{2}$ of S. W. $\frac{1}{4}$ " 22,	"	"
W. $\frac{1}{2}$ of S. E. $\frac{1}{4}$ " 22,	"	"
N. W. $\frac{1}{4}$ of N. E. $\frac{1}{4}$ " 27,	"	"
S. W. $\frac{1}{4}$ of N. W. $\frac{1}{4}$ " 35,	"	"
E. $\frac{1}{2}$ of N. E. $\frac{1}{4}$ " 20, tp. 17 N.,	"	"
E. $\frac{1}{2}$ of S. E. $\frac{1}{4}$ " 20,	"	"
N. E. $\frac{1}{4}$ of " 21,	"	"
W. $\frac{1}{2}$ of " 21,	"	"
N. E. $\frac{1}{4}$ of S. E. $\frac{1}{4}$ " 21,	"	"
W. $\frac{1}{2}$ of S. E. $\frac{1}{4}$ " 21,	"	"
N. E. $\frac{1}{4}$ " 22,	"	"
E. $\frac{1}{2}$ of S. W. $\frac{1}{4}$ " 22,	"	"
N. W. $\frac{1}{4}$ of S. W. $\frac{1}{4}$ " 22,	"	"
N. E. $\frac{1}{4}$ of N. W. $\frac{1}{4}$ " 27,	"	"
W. $\frac{1}{2}$ of N. E. $\frac{1}{4}$ " 28,	"	"
E. $\frac{1}{2}$ of N. W. $\frac{1}{4}$ " 28,	"	"
S. W. $\frac{1}{4}$ of N. W. $\frac{1}{4}$ " 28,	"	"
S. W. $\frac{1}{4}$ " 28,	"	"
E. $\frac{1}{2}$ " 32,	"	"
E. $\frac{1}{2}$ of S. W. $\frac{1}{4}$ " 32,	"	"
N. W. $\frac{1}{4}$ " 32,	"	"
W. $\frac{1}{2}$ of S. W. $\frac{1}{4}$ " 32,	"	"

You rejected the claim of the State to the following tracts, viz: S. E. $\frac{1}{4}$ of S. W. $\frac{1}{4}$ section 26, N. E. $\frac{1}{4}$ of N. W. $\frac{1}{4}$ section 35, township 16 N., range 2 W.; and N. W. $\frac{1}{4}$ of N. W. $\frac{1}{4}$ section 28, W. $\frac{1}{2}$ of N. W. $\frac{1}{4}$, N. E. $\frac{1}{4}$ of N. W. $\frac{1}{4}$, N. W. $\frac{1}{4}$ of N. E. $\frac{1}{4}$, and N. W. $\frac{1}{4}$ of S. W. $\frac{1}{4}$ section 34, tp. 17 N., range 2 W., either because the State failed to show that said lands were swampy or because no testimony was offered as to their swampy character.

You also found that the papers failed to show whether any testimony was offered as to the character of the W. $\frac{1}{2}$ of S. E. $\frac{1}{4}$, and W. $\frac{1}{2}$ of section 16, tp. 16 N., range 2 W., and section 16, and S. E. $\frac{1}{4}$ of section 22, tp. 17 N., range 2 W., and directed the surveyor general to report what action, if any, was had on said tracts. You do not state what response was made by the surveyor general to this direction. At the hearing before the surveyor general proof was made that part of the lands segregated by the State and claimed by her as swampy or overflowed had, prior to that time, been sold or otherwise disposed of by the United States, and that officer thereupon refused to allow testimony to be introduced by the State as to the character of these tracts. Your predecessor held that the question for consideration was the character of the land, and that the State had the right to present testimony as to the character of each tract mentioned in the published notice of the investigation, and if the land was actually swampy it inured to the State September 28th, 1850, and a subsequent disposition thereof by the government, either by grant to a railroad company or sale to individuals, could not divest the State's title.

The Central Pacific Railroad Company has appealed from so much of the decision of your office as authorizes an investigation into the character of the lands patented to said company. The State has appealed from the refusal of your office to certify over to her all of the lands segregated by her officers as swamp or overflowed in 1861 claiming that said lands were confirmed to her by the second clause of the fourth section of the act of Congress entitled "An act to quiet land-titles in California," approved July 23d, 1866. She also asks that her appeal taken from your predecessor's decision of August 28, 1874, may be reinstated, and the objections then made thereto now considered.

The appeal of the railroad company must be overruled. By the decision of the Supreme Court of the United States, in the case of *Newhall vs. Sanger*, (2 Otto 761), it was held that lands within the boundaries of an alleged Mexican or Spanish grant, which was *sub judice* at the time the Secretary of the Interior ordered a withdrawal of lands along the route of the road, were not embraced in the grant to the company. This was the condition of the lands involved in this case, which were (as before stated) within the claimed limits of the Diaz grant at the date of the withdrawal, and did not therefore inure to the railroad grant. You are therefore directed to call for a return of the patents, and a relinquishment by the company to the United States of the lands patented to it within the claimed limits of said alleged Mexican grant. As the right

of the State of California to swamp and overflowed lands lying within the limits of an alleged Spanish or Mexican grant, which has been adjudged by the courts to be invalid, has been seriously questioned since the decision of the Supreme Court in the case of *Newhall vs. Sanger*, above cited, and it has been assumed to be a question of grave doubt whether the swamp grant attached to this class of lands, I think it proper to express my view on this question, before entering into an examination of the other questions of law involved in this case.

California was acquired from Mexico, in the year 1848, by the treaty of Guadalupe Hidalgo, and was admitted into the Union of States September 9, 1850. The swamp-land grant was made on September 28, 1850, and being a present grant, vested an immediate title in the State to all lands of the kind described therein, to which the United States had title at the date of the grant. Congress had authority to grant to the State the title to all lands of the class mentioned, not sold or held under valid claims unless a reservation was created by the treaty with Mexico, by which the United States was obliged to protect fraudulent and assumed property rights within the ceded territory, in the same manner that valid property rights were to be protected. This was not the case, as will be seen by reference to the eighth article of the treaty, which placed the inhabitants of the ceded territory on the same footing as to property rights as other citizens of the United States, but gave them no greater rights or privileges. They could retain what they lawfully possessed, or sell and convey it at pleasure. The government, however, did not obligate itself to protect Mexicans, or those claiming under them, in the possession of property to which they had no title, inchoate or perfect. Property is the right and interest which a man has in lands and chattels to the exclusion of others (6 Binn. Penn., 98; 4 Peters, 511; 17 Johns. N. Y., 283; 11 East, 290). What exclusive interest could any one possess in an invalid or fraudulent grant? Obviously he had no property rights under the Mexican Government, and acquired none by the change of sovereignty; I am of the opinion, therefore, that persons holding under invalid or fraudulent grants had no interest in the lands which excluded them from passing to the State under the swamp grant. The act of March 3, 1851, created a reservation alike of valid and invalid Mexican and Spanish claims, and that reservation continued until the validity of the title was finally determined in the manner provided in the act. While this reservation continued, the State could not obtain possession of the granted lands, but her title was in no wise divested thereby. If the swamp grant had been made subsequent to the act of 1851, and while the reservation was in force, the doctrine announced in the case of *Newhall vs. Sanger* must have prevailed; but it can have no application in this case, as the grant was made before the reservation was created.

The lands involved in this case were surveyed and segregated by the State in 1861; the State surveys were made on the rectangular system, and therefore conformed to the system of surveys adopted by the United States. The government surveys were not made until after the passage of the act of July 23d, 1866, and the question arises whether the State is entitled by virtue of the 4th section of the said act to all of the lands segregated by her on the rectangular system as swampy and overflowed, but not so returned on the government plats of survey, or to such only as the testimony shows were of that character at the date of the swamp grant.

It was held by my predecessor, Hon. C. Delano, in a decision rendered December 5, 1871, that the second clause of the fourth section of the act of July 23d, 1866, secured to the State such lands only as had been surveyed by the United States prior to the date of said act; and in cases where surveys were subsequently made by the United States if the lands were not returned on the plats as swampy, the right of the State must depend upon her ability to prove that they were in fact swampy in 1850. I am unable to arrive at such a conclusion. The first clause of said fourth section is as follows: "That in all cases where township surveys have been, *or shall hereafter be*, made under authority of the United States, and the plats thereof approved, it shall be the duty of the Commissioner of the General Land Office to certify over to the State of California, *as swamp and overflowed*, all the lands *lands represented as such upon such approved plats*, within one year from the passage of this act, or within one year from the return and approval of such township plats." The surveyor general is the agent of the government, and to him is given the power of designating, for and on behalf of the government, the lands which are found on examination to be of the character granted to the State. It is made a part of his official duty and is in all respects consistent with it. This clause secures to California all lands which the surveyor general officially reports to be swampy, whether they are so or not. The second clause of the fourth section of said act, and the one about which there has been so much controversy is in the following language, viz: "The Commissioner shall direct the United States surveyor general for the State of California to examine the segregation maps and surveys of the swamp and overflowed lands made by said State; and where he shall find them to conform to the system of surveys adopted by the United States, he shall construct and approve township plats accordingly, and forward to the General Land Office for approval: *Provided*, That in segregating large bodies of land notoriously and obviously swamp

and overflowed, it shall not be necessary to subdivide the same, but to run the exterior lines of such body of land."

In order to understand the object of this clause, it is necessary to briefly revert to the condition of affairs which existed in California at the time the act was passed. The State, in her anxiety to obtain possession of those lands which had been granted her, undertook to anticipate the lawful setting apart of them by the government, and to that end caused segregation surveys to be made by her officers. These surveys were extended over the swampy lands, and in many instances over the adjacent dry lands as well. The State then sold the lands to innocent third parties, although the dry lands had never passed under the grant, and she had in fact no title to any except swampy and overflowed lands. The dry lands were, in many cases, occupied by *bona-fide* settlers, claiming the right to enter them under the pre-emption and homestead laws, and the result was an inextricable confusion of titles and claims growing out of these conflicting interests. The act of September 28, 1850, granted none but swampy or overflowed lands, whereas the State had segregated both dry and swamp lands. The clause above quoted was therefore enacted to make an end of controversy, by confirming to the State those lands which she had segregated, in accordance with the system of surveys adopted by the general government. I am of opinion that this clause confirms absolutely to the State all lands not in a state of reservation which had been segregated by her prior to July 23, 1866, if the State surveys were made on the rectangular system, whether the lands had been surveyed by the United States or not, or whether they were swampy or dry lands, provided no valid pre-emption or homestead claim or other right had been acquired by any settler, as provided in the first section of the act.

It is the duty of the surveyor-general to prepare plats showing those lands segregated by the State, where the surveys were made on the rectangular system and conform to the United States surveys prior to July 23, 1866, as swampy, and when this is done, the plats should be approved and the lands certified over to the State, unless you shall find that there were *bona-fide* settlers on the dry lands at the date of the approval of the act, in which event the claim of the State must give way to that of the settler. This act gave the settler no right to enter lands which were swampy in 1850, because the government had no title in them, and could not give a settler a right to enter lands previously granted to the State. In other words, the State acquired title to all public lands which were swampy or overflowed in 1850, and the act of 1866 did not abrogate that grant, but, on the contrary, extended it, by giving her in some cases dry lands as well.

In cases where the State segregation surveys were not made on the rectangular system, and where no surveys had been made either by the State or the United States prior to July 23, 1866, the surveyor-general, by the third clause of said fourth section, is required to make segregation surveys, and to represent and describe on the plats of survey what lands were actually swampy in 1850 from the best evidence he can obtain. If the State is dissatisfied with the surveyor-general's action and claims more lands than are set off to her as swampy, she is entitled to make proof of her claim before the surveyor-general. The lands involved in this case, however, were not confirmed by the act of July 23, 1866, as that act only confirmed to the State those dry lands which had been segregated by her on the rectangular system prior to that time, and which were not then in a state of reservation. The lands within the Diaz grant were reserved by the act of March 3, 1851, and that reservation continued until the grant was finally rejected on March 3, 1873, a period of twenty-two years, and the same rule that excepted them from the railroad grant excepted them also from the confirmation contained in the act of 1866.

I am of opinion, therefore, that the State is entitled to those lands only which were returned by the surveyor-general as swampy or overflowed, or which the proof shows were of that character in 1850. Your finding of fact as to the character of the lands in dispute is affirmed, and the swampy lands will be certified over to the State. The surveyor-general should be instructed to proceed with the hearings as to the character of those lands in relation to which he refused to allow testimony to be taken in 1874.

Your decision is modified accordingly; and the papers transmitted with your letter of January 8, 1876, are herewith returned.

Very respectfully,

C. SCHURZ, *Secretary.*

The COMMISSIONER OF THE GENERAL LAND OFFICE.

By the act of March 3, 1857 (*Revised Statutes of the United States*, section 2484), the lands selected and reported as swamp and overflowed lands within the six-mile limit of the Illinois Central Railroad grant were confirmed to the State, so far as they remained vacant and unappropriated at that date.

DEPARTMENT OF THE INTERIOR, OFFICE OF THE SECRETARY,
Washington, D. C., May 2, 1878.

SIR: I have considered the appeal of the State of Illinois from your decision of February 23, 1878, rejecting her application to have the following tracts certified to her as swamp and overflowed land under the provisions of section 2484 of the Revised Statutes of the United States, viz:

N. $\frac{1}{4}$ of N. W. $\frac{1}{4}$ section 11, tp. 6 N., range 1 E., 3d P. M.

S. W. $\frac{1}{4}$ of N. W. $\frac{1}{4}$ section 1, tp. 4 N., range 1 W., 3d P. M.

S. E. $\frac{1}{4}$ of S. W. $\frac{1}{4}$ section 17, tp. 28 N., range 1 W., 4th P. M.

Fr'l N. E. $\frac{1}{4}$ section 29, tp. 28 N., range 1 W., 4th P. M.

The facts in this case are as follows, viz: By act of Congress approved September 20, 1850, there was granted to the State of Illinois, to aid in the construction of a railroad "from the southern terminus of the Illinois and Michigan Canal to a point at or near the junction of the Ohio and Mississippi Rivers, with a branch of the same to Chicago, on Lake Michigan, and another via the town of Galena, in said State," every alternate section of land designated by even numbers for six sections in width on each side of said road and branches; and in case any of said land had been sold by the United States, or the right of pre-emption had attached to the same at the time the line of said road was definitely fixed, the State was granted indemnity for the lands so lost, to be selected from the most contiguous tier of alternate sections within fifteen miles of the line of the road. (9 Statutes, p. 466.)

The sale of the lands within the six and fifteen mile limits of said road was suspended by letter of the Commissioner of the General Land Office, dated September 20, 1850, pursuant to an order of President Filmore, dated September 19, 1850.

The Illinois Central Railroad was constructed under this grant, and the whole grant, with the exception of a few trifling balances, was adjusted and certified March 13, 1852; and the balance of the lands within the six and fifteen mile limits were subsequently offered at public sale and restored to market by executive proclamation.

By act approved September 28, 1850 (9 Stat., 519), Congress granted to the several States of the Union all of the unsold swamp and overflowed lands within their respective limits.

It appears that on November 20, 1855, my predecessor, Hon. R. McClelland, decided that the lands within the six-mile limits of the Illinois Central Railroad did not inure to the State under the swamp-land grant of September 28, 1850, and rejected the claim of the State thereto. You held that the decision of Secretary McClelland, under which your office had acted for twenty-two years, was final and conclusive against the claim of the State to these lands, and rejected this application for that reason. I am of opinion that the decision of Secretary McClelland is final and conclusive upon the questions decided by him, but I do not think that decision has any application whatever to the case under consideration.

Secretary McClelland simply decided that the odd sections of lands within the six-mile limits of the grant to the Illinois Central Railroad, did not inure to the State under the swamp-land grant of September 28, 1850; whereas, in this case, the State is not claiming under the act of 1850, but under the act approved March 3, 1857, entitled "An act to confirm to the several States the swamp and overflowed lands selected under the act of September twenty-eight, eighteen hundred and fifty, and the act of the second March, eighteen hundred and forty-nine," as re-enacted in section 2484 of the Revised Statutes of the United States. The statute under which the State claims is as follows, viz:

"SECTION 2484. All lands selected and reported to the General Land Office as swamp and overflowed land by the several States entitled to the provisions of said act of September 28, 1850, prior to March 3, A. D. eighteen hundred and fifty-seven, are confirmed to said States respectively so far as the same remained vacant and unappropriated, and not interfered with by an actual settlement under any law of the United States."

The language of the act of March 3, 1857, and of the above re-enactment is plain and unambiguous, and its effect was to confirm to the several States all selections of swamp and overflowed lands which had been reported to your office prior to March 3, 1857, and remained vacant and unappropriated and not interfered with by actual settlement. This view of the law is fully sustained by the former decisions of this department.

In the case of *J. D. Ludlow vs. The State of Illinois*, decided on January 8, 1858, my predecessor, Hon. J. Thompson, held as follows, viz:

"I am of opinion that the act of Congress of March 3, 1857, entitled 'An act to confirm to the several States the swamp and overflowed lands, selected under the act of

September 28, 1850,' is, as respects the disposition of cases on the files of your office at the date of its passage, mandatory in its terms. It confirms the claim of the States to selections of swamp and overflowed lands 'heretofore made and reported to the Commissioner of the General Land Office, so far as the same remain vacant and unappropriated and not interfered with by any actual settlement under any existing laws of the United States,' and directs that they be approved and patented to the several States. * * * It is not for me to call in question the constitutionality of the act of Congress under discussion, or to refuse obedience to a plain requirement of said act, on account of the effect or consequences of such obedience." (1 Lester's Land Laws, p. 558.)

In a decision relating to swamp lands and lands granted for railroad purposes in the State of Iowa, rendered July 23, 1859, Secretary Thompson held as follows, viz :

"The act of Congress of the 3d March, 1857, confirmed all selections under the swamp grant, which had been regularly reported, and were on file in your office at that date, so far as the lands remained vacant and unappropriated; and we need not now inquire whether lands so selected and reported were or were not swampy on the 28th September, 1850, if they remained vacant and unappropriated on the 3d March, 1857." (1. Lester's Land Laws, p. 570.) The tracts involved in this case were selected by the State as swamp and overflowed lands on October 29, 1853, and said selections had been regularly reported and were on file in your office at the date of the approval of the act of March 3, 1857, and I am, therefore, of opinion that said lands are within the confirmatory provisions of the act.

The act of September 28, 1850, and the decision of Secretary McClelland are unimportant in the consideration of the questions at issue in this case, as the claim of the State rests upon the confirmatory act of March 3, 1857, as incorporated into section 2484 of the Revised Statutes, which was in effect a grant *de novo* of the selected lands, and perfected the title of the State therein, as held by the Supreme Court of the United States in the recent case of *Martin vs. Marks*, decided at the present term.

On examination of the records of your office I find that the N. $\frac{1}{4}$ of N.W. $\frac{1}{4}$ section 11, tp. 6 N., range 1 E., was entered by Nathan Sanford, per certificate No. 29400, upon which patent issued August 20, 1875.

As this tract has been patented, it has passed beyond the jurisdiction and control of this department; and the application of the State to have the same certified to her under the act of March 3, 1857 as re-enacted in section 2484 of the Revised Statutes, is refused, as such certification would be equivalent to the issuance of a second patent for the same land, while the first was outstanding and uncanceled.

The S. W. $\frac{1}{4}$ of N. W. $\frac{1}{4}$ sec. 1, tp. 4 N., range 1 W., is now vacant land, but at the date of the passage of the act of March 3, 1857, it was covered by cash entry No. 26356, made October 8, 1856, by R. P. Vincent. This entry, however, was canceled on November 16, 1857, on account of the prior swamp selection of the land by the State, and the purchase money was returned June 8, 1861, under the act of February 28, 1859. This tract was not legally appropriated at the date of the confirmatory act and is now vacant, and there is no reason why it should not be certified to the State.

The S. E. $\frac{1}{4}$ of S. W. $\frac{1}{4}$ section 17, tp. 28 N., range 1 W., 4th P. M.; the S. E. fr'l $\frac{1}{4}$ of S. W. $\frac{1}{4}$ sec. 17, tp. 28 N., range 1 W., north of navigable slough, containing 26.25 acres, was entered by John S. Crawford, at Springfield, Ill., April 18, 1856, and patented March 12, 1857. This tract was not, therefore, confirmed by the act of March 3, 1857.

The S. E. fr'l $\frac{1}{4}$ of S. W. $\frac{1}{4}$ sec. 17, tp. 28, range 1, on the right bank of said navigable slough, and containing 6.72 acres, was vacant land on March 3, 1857, and is now vacant, and there is no reason why it should not be certified to the State.

The fr'l N. E. $\frac{1}{4}$ sec. 29, tp. 28 N., range 1 W., 4th P. M., containing 27.70 acres, is situated on an island in the Mississippi River, near the Illinois shore, and as the boundary of the State extends to the middle of said river, and the land was unappropriated on March 3, 1857, and is now vacant, it should be certified to the State.

Your decision is reversed for the reasons stated; and the papers transmitted with your letter of March 1, 1878, are herewith returned.

Very respectfully,

C. SCHURZ, *Secretary.*

The COMMISSIONER OF THE GENERAL LAND OFFICE.

Change of the rules and regulations in regard to proof of the swampy character of lands, for which indemnity is claimed under the act of March 2, 1855 (Rev. Stats., section 2482).

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D. C., June 6, 1878.

SIR: I have considered the testimony relating to the claim of the State of Iowa for indemnity for swamp lands in Greene County, disposed of by the United States prior to

March 3, 1857. The records of your office show that all of the lands for which indemnity is claimed were selected by the State May 11, 1859, under the swamp grant of September 28, 1850, except the S. $\frac{1}{2}$ of S. W. $\frac{1}{4}$ sec. 22, tp. 82, range 29, which was selected June 23, 1863.

In view of the facts developed by the investigation in this case, I am of the opinion that some change should be made in the circular of instructions, dated January 23, 1877, for the taking of proof for indemnity under the acts of March 2, 1855, and March 3, 1857 (sections 2482, 2483, and 2484 of the Revised Statutes).

After a list of the lands for which indemnity is claimed is received at your office, and before the hearing is ordered, a clerk, possessing experience and intelligence, should be designated to make a careful examination of each of the tracts for which indemnity is claimed, noting in a book, to be kept for that purpose, the topography of the country, whether any portion of the tract has been cultivated or not; if so, how much, its present condition, and such other information in relation thereto as can be obtained from personal observation and examination, and by inquiry of the owner thereof, or resident thereon, if any there be, and persons residing in the vicinity, having personal knowledge of the past and present character of the tract.

After such examination has been made, thirty days' notice of the time and place when and where testimony will be received to ascertain the swampy character of the tracts mentioned and described in the list should be given to the claimant.

In cases where the agent shall be satisfied, upon examination and inquiry, that any tract or tracts are of the character granted by the act of September 28, 1850, the testimony of two witnesses, taken in the manner and form prescribed by the regulations of your office of January 23, 1877, should be deemed sufficient proof of that fact. In cases where the agent shall be of opinion that any tract or tracts are not of the character mentioned in said act, he shall not only carefully and thoroughly cross-examine the witnesses produced by the claimants as to the extent of their knowledge and information of a particular tract, but should also obtain the testimony of persons owning or residing upon the lands, or in the immediate vicinity thereof, having a personal knowledge of such tract, extending the inquiry through a series of years, as near to the date of the swamp-grant as possible.

While it is true that persons not acquainted with a particular tract or particular tracts after examination may give valuable testimony as to the character of the land, still such testimony is little more than the opinion of the witness, founded upon such examination, while the real question is one of fact, viz: Whether the greater portion of the tract in question is swampy and overflowed, within the meaning of the act of September 28, 1850.

I am therefore of the opinion that claimants should be required to produce witnesses who possess an intimate knowledge, derived from personal observation, as to the character of each tract concerning which they testify, and that they should be required to state facts and not opinions.

In cases where the agent may be in doubt as to the amount of the particular tract which is swampy or overflowed, he should be instructed to have a survey and plat made of the tract by a competent surveyor, in order that the exact amount of the tract which is swampy or overflowed may be shown.

After the testimony is taken, the agent should be instructed to make a full report upon each of the tracts upon which testimony is taken, together with his opinion as to the real character of each of said tracts.

In cases where the proofs have been made under the present or former regulations of your office, they should be examined and determined upon the proof presented, if such proofs are found to be in accordance with the particular regulations under which they were taken.

In the examination of such cases, however, the testimony should be carefully and thoroughly examined, and unless the testimony satisfactorily shows that the greater portion of any particular tract is swampy or overflowed, the claim should be rejected.

The papers transmitted with your letter of the 19th of March last are herewith returned.

Very respectfully,

C. SCHURZ, *Secretary.*

The COMMISSIONER OF THE GENERAL LAND OFFICE.

Examining, adjusting, and reporting accounts.

A large and important part of the business of this office has reference to the accounts of surveyors general and receivers of public moneys, and the accounts arising under the laws giving to States 5 per centum of the net proceeds of the sales of the public lands within their respective limits. In the course of numerous and multifarious transactions in lands

errors frequently occur which make necessary changes of entry of public lands in some cases, and the repayment from the Treasury of moneys erroneously paid in others, according to the laws providing therefor. The work connected with the examining, adjusting, and reporting to the Treasury for final settlement of the accounts of the registers and receivers, with changes of entry, re-payments, and other matters of a similar nature, or incidental thereto, pertains to the division of accounts in this office. What was accomplished therein during the fiscal year ending June 30, 1878, and the unfinished business at its termination are thus stated:

Letters received.....	15, 392
Letters written (covering 3,125 pages letter post)	2, 809

Examined, adjusted, and reported to the First Comptroller of the Treasury for final settlement:

Repayment accounts for lands erroneously sold	243
Receivers' quarterly accounts	508
Receivers' quarterly accounts acting as disbursing agents	720
Five per centum accounts	11
Timber agents' accounts	41
State swamp indemnity accounts.....	3

The above accounts covered 1,842 pages folio post and 284 pages cap. The record of the reports on said accounts, together with other written matter, embraced 3,875 pages folio.

All the returns from the district land offices for the fiscal year were received in this division, examined, and properly registered before being distributed to the other divisions of the office.

Tabular statement No. 2, hereto attached, was prepared in this division, and represents a great amount of labor.

At the termination of the fiscal year the unfinished business consisted of—

Repayment claims complete and awaiting adjustment.....	75
Repayment claims incomplete and awaiting additional evidence.....	500

In the two last annual reports of this office, attention was called to the necessity of an amendment to paragraph 2, section 2238, Revised Statutes, and I respectfully renew the recommendation made on page 5 of my report for the fiscal year ending June 30, 1877, that the registers' and receivers' commissions therein provided for may be in express terms restricted to moneys received from cash sales, for reasons there given.

It is impossible to conceive of any class of claims against the government possessing stronger equities than those of parties claiming the repayment of moneys paid for lands erroneously sold, and I would call particular attention to the recommendations made in the same report (page 6) looking to such an amendment of section 2362 United States Revised Statutes as would enable the department to extend prompt relief, where the title cannot be confirmed, and also in cases where erroneous and illegal exactions have been made, by refunding to the parties the money paid in error. The necessity of further legislation on this subject is urgent, and I feel confident that upon attention being again called to it, Congress will take the proper action thereon.

Prior to the last fiscal year the joint fees allowed registers and receivers for reducing testimony to writing in establishing pre-emption, homestead, and mineral rights (subdivisions 10 and 11, section 2238 Revised Statutes) were not required to be accounted for by the receivers of public moneys. On July 9, 1877, this office, after careful consideration, decided that under the law as it now stands these fees should be accounted for as other fees and commissions. The result is that from July 1, 1877, to June 30, 1878, the amount of such fees so accounted for was \$27,664.45.

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The services for which these moneys are received are over and above the ordinary duties of the registers and receivers. The performance thereof involves personal labor, and frequently requires clerical assistance to be employed by those officers for the purpose, and the moneys are to be viewed as in the nature of expenses incident to the prosecution of the claims, rather than fees. I regard it as a hardship to compel the district officers to charge up the same against their maximum compensation, and recommend legislation to relieve them therefrom.

Transfer of title.

The laws for disposing of the public lands generally provide for transferring the title by patent. The act of Congress approved July 4, 1836 (vol. 5, page 107), in its fourth section enacts "that there shall be appointed by the President, by and with consent of the Senate, a Recorder of the General Land Office, whose duty it shall be, in pursuance of instructions from the Commissioner, to certify and affix the seal of the General Land Office to all patents for public lands, and he shall attend to the correct engrossing and recording and transmission of such patents," * * * "and he shall prepare such copies and exemplifications of matters on file or recorded in the General Land Office as the Commissioner may from time to time direct." (See also Rev. Stat., section 459.)

By act approved March 3, 1841 (vol. 5, page 416), it was enacted "that from and after the passing of this act it shall be the duty of the Recorder of the General Land Office, in addition to the duties now required of him by law, to countersign all patents issued from said office." (See Rev. Stat., section 458.)

Under the above and other statutory enactments and official regulations, the following work was done in the Recorder's Division of this office during the fiscal year ending June 30, 1878:

Number of letters received.....	7,646
Number of letters written.....	8,303
Pages of record covered.....	6,809
Certified copies furnished from patent records.....	4,537
Cash received for same under section 461, Rev. Stat.....	\$7,790.63
Increase over previous year.....	\$1,351.63

Number of agricultural patents issued:

For cash entries.....	2,998
For homestead entries.....	13,418
For military bounty-land warrant locations.....	419
For agricultural-college scrip locations.....	123
For Sioux half-breed scrip locations.....	12
Total.....	16,970

showing a decrease from the preceding year of 6,556, which was caused by want of clerical force to prepare them. Number of patents transmitted, 13,959; total number of patents signed and sealed by the Recorder and issued in the General Land Office, 17,718, showing the number issued of mineral, railroad, swamp, and other patents, not agricultural, to have been 748.

By the rules and practice of the office all patents other than agricultural are prepared outside of this division, the Recorder being required only to sign and seal the same.

In the last annual report of this office, pages 37, 38, and 39, there was given an exhibit of the number and kind of agricultural patents issued for land in the different States and Territories from 1793 to the close of

the fiscal year ending June 30, 1877, showing a total of 2,785,784. To that exhibit can now be added those issued for the last fiscal year, as follows:

Agricultural.....	16,970
Mineral.....	547
Donations.....	62
Private claims.....	69
Indian claims.....	23
Swamp grants.....	30
Railroads.....	15
Scrip locations.....	5
Old Virginia.....	3
Total.....	17,724

There is at this time 7,325 cases in the division, approved, and ready for patents to issue whenever a force can be obtained for the work. As a correct and exact record is kept in the office of every patent issued, there is an aggregate of work to be done double the amount indicated by the number of cases here stated in order to issue patents therefor. Add to this the ordinary increase from the monthly returns, and it will take many months, with a large force employed, to finish the work. There should be employed in this division not less than forty experienced clerks; whereas there is at this time only half that number, a force sufficient only to perform the daily current work, leaving the accumulated and fast-increasing work of patent writing untouched, except where special reasons and wants are presented in isolated cases.

When patents are ready for delivery they are transmitted to the local office where entry was made, to be surrendered to the proper party upon return of the duplicate certificate, or receipt as the case may be, or, in case of its loss, then upon filing an affidavit made by the present *bona-fide* owner of the land alleging such ownership and accounting for the loss of the duplicate.

Formerly, when a local office was discontinued, or merged with another office, the patents remaining on hand undelivered were returned to this office, and in this way there have accumulated about 300,000 in round numbers, at the present time, notwithstanding every effort made to place them in the hands of the owners, either the original patentees or those holding under them by regular chain of conveyance.

I would again urge the importance of such an appropriation from Congress as will enable this office to continue the work, already well advanced, of preparing lists of such patents and furnishing them to the proper officer of each county in the older States, hoping thereby to relieve the files of this office of a great burden, and at the same time place the patents in the hands of the owners.

The patent records now in this division of the office aggregate about seven thousand volumes properly numbered and arranged in cases prepared for the purpose; and the certificates and other papers upon which patents are founded, to the number of about eleven millions, are also arranged in the files by numbers, land offices, and States, so that any desired paper can be found at a moment's notice.

The call from outside parties for papers from the files in order to verify title in cases where the patents have been lost or destroyed has increased to such an extent that it now adds greatly to the work of the office. Another cause for an examination of the original certificates and proofs in a case arises from the fact that in the early days of the land system the surveys were more or less incomplete and imperfect,

often being changed by a resurvey or replatting and giving to a tract of land a description different from the original. It is also found that at an early day and before this office was properly systematized, many patents were erroneously engrossed.

The call for certified copies from the records of patents has also very largely increased, and is now bringing to the office, from this division alone, as stated elsewhere, nearly \$8,000 every year; and it must continue to increase as time passes, obvious causes tending to obliterate and destroy the original deed in its passage from hand to hand, as the land changes ownership.

I would respectfully urge the passage of a law that will permit the office to retain this fund, to be devoted to the purpose of employing a clerical force to perform such work, and not turn it into the United States Treasury as is now required. The effect of the law as it now stands is to reduce the regular appropriation and force of this office to the extent of the work required to earn this fund for the general Treasury.

TIMBER LANDS—TIMBER DEPREDATIONS.

In my annual report to you of last year, the subject of depredations upon the timber on the public lands of the United States was presented, a history was given of the action that had been taken toward their suppression, and a statement was made of the efforts to this end then in operation. The condition of the timbered lands was reviewed, and measures for the protection and preservation of the timber, and the survey and sale of the timbered lands were suggested.

Legislation was enacted by Congress at the last session upon these subjects as follows:

1. By act of April 30, 1878, an appropriation was made of \$7,500 for the actual expenses of clerks detailed to investigate fraudulent land entries, trespasses on the public lands, and cases of official misconduct, with the provisos—

That all moneys heretofore, and that shall hereafter be, collected for depredations upon the public lands, shall be covered into the Treasury of the United States as other moneys received from the sale of public lands: *And provided further*, That where wood and timbered lands in the Territories of the United States are not surveyed and offered for sale in proper subdivisions, convenient of access, no money appropriated shall be used to collect any charge for wood or timber cut on the public lands in the Territories of the United States, for the use of actual settlers in the Territories, and not for export from the Territories of the United States where the timber grew: *And provided further*, That if any timber cut on the public lands shall be exported from the Territories of the United States, it shall be liable to seizure by United States authority wherever found.—(Statutes, second session Forty-fifth Congress, p. 46.)

2. In act of June 20, 1878, "To meet expenses of suppressing depredations upon timber on the public lands, twenty-five thousand dollars."—(Statutes, second session Forty-fifth Congress, p. 229.)

3. Act of June 3, 1878, entitled "An act authorizing the citizens of Colorado, Nevada, and the Territories to fell and remove timber upon the public domain for mining and domestic purposes."—(Statutes, second session Forty-fifth Congress, p. 88.)

4. Act of June 3, 1878, entitled "An act for the sale of timber lands in the States of California, Oregon, Nevada, and in Washington Territory."—(Statutes, second session Forty-fifth Congress, p. 89.)

Circulars reviewing the provisions of these acts and presenting rules and regulations thereunder, have been issued as follows: One of August 13, 1878, issued under the last-mentioned act of June 3, 1878, and which

is given in another part of this report, and one of the 15th of the same month, which is here given:

DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,
Washington, D. C., August 15, 1878.

TO REGISTERS AND RECEIVERS
of United States Land Offices:

GENTLEMEN: The following is a review of the provisions of the act entitled "An act for the sale of timber lands in the States of California, Oregon, Nevada, and in Washington Territory," approved June 3, 1878, and of the act approved same date, entitled "An act authorizing the citizens of Colorado, Nevada, and the Territories to fell and remove timber on the public domain for mining and domestic purposes," so far as they relate to the privilege of cutting and removing timber from the public lands of the United States, the punishment therefor, or to the protection of "timber and of the undergrowth" growing upon the public lands. Copies of these acts are annexed.

The fourth section of the first-mentioned act provides that "it shall be unlawful to cut, or cause or procure to be cut, or wantonly destroy, any timber growing on any lands of the United States, in said States and Territory, or remove, or cause to be removed, any timber from said public lands, with intent to export or dispose of the same; and no owner, master, or consignee of any vessel, or owner, director, or agent of any railroad, shall knowingly transport the same, or any lumber manufactured therefrom; any person violating the provisions of this section shall be guilty of a misdemeanor, and, on conviction, shall be fined for every such offense a sum not less than one hundred nor more than one thousand dollars." Provision is also embraced in said section that "the penalties herein provided shall not take effect until ninety days after the passage of this act." This section also contains a proviso as follows: "And nothing herein contained shall prevent any miner or agriculturist from clearing his land in the ordinary working of his mining claim, or preparing his farm for tillage, or from taking the timber necessary to support his improvements, or the taking of timber for the use of the United States." The penalty provided for in this section takes effect after the first day of September, 1878, and applies to cutting for any purpose other than that mentioned in this proviso, such as the wanton destruction of timber, or its removal for export or disposal.

In the States and Territory mentioned the effort of the executive will in the future be directed to the proper punishment of parties who may cut for purposes not authorized by the statute under consideration, and to the prevention, so far as practicable, of further trespass against the general law.

The fifth section of the act provides "that any person prosecuted in said States and Territory for violating section two thousand four hundred and sixty-one of the Revised Statutes of the United States who is not prosecuted for cutting timber for export from the United States may be relieved from further prosecution and liability therefor upon payment into the court wherein said action is pending of the sum of two dollars and fifty cents (\$2.50) per acre for all lands on which he shall have cut or caused to be cut timber, or removed or caused to be removed the same: *Provided*, That nothing contained in this section shall be construed as granting to the person hereby relieved the title to said lands for said payment; but he shall have the right to purchase the same upon the same terms and conditions as other persons, as provided hereinbefore in this act." This provision is applicable alike to cases pending at the time of the passage of the act, and to such cases as have been since or may hereafter be commenced.

Section 5 also contains provision that all moneys collected under this act shall be covered into the Treasury of the United States, and section 4751 of the Revised Statutes of the United States, which authorizes the penalties and forfeitures incurred under sections 2461 and 2462 of the Revised Statutes, to be sued for, recovered and accounted for, under the direction of the Secretary of the Navy, is repealed, so far as it relates to these States and Territory.

By the provisions of the last-mentioned act "all citizens of the United States and other persons *bona fide* residents of the States of Colorado, Nevada, or either of the Territories of New Mexico, Arizona, Utah, Wyoming, Dakota, Idaho, and Montana, and all other mineral districts of the United States, are authorized and permitted to fell and remove for building, agricultural, mining, or other domestic purposes, any timber or other trees growing, or being upon the public lands, said lands being mineral and not subject to entry under the existing laws of the United States, except for mineral entry in either of said States, Territories, or districts of which such citizens may be at the time *bona fide* residents, subject to such rules and regulations as the Secretary of the Interior may prescribe for protection of the timber, and of the undergrowth growing upon such lands, and for other purposes."

The first section contains a provision that this act shall not extend to railroad corporations. A copy of the rules and regulations prescribed by the Secretary of the

Interior for the protection of the timber and of the undergrowth growing upon the mineral lands of the United States, in compliance with this provision, is printed herewith. The second section of this act makes it the duty of the register and receiver of any local land office in whose district any mineral land may be situated to ascertain from time to time whether any timber is being cut or used upon any of the mineral lands, except for the purposes authorized by this act, within their respective land districts; and, if so, they are required to notify the Commissioner of the General Land Office of that fact.

These reports will be made by the registers and receivers separately from those relating to any other subject, and will give the details of any violation of the provisions of this act.

The registers and receivers are allowed all necessary expenses incurred in making such proper examinations in regard to violations of the provisions of this act, which will be paid and allowed them in making up their next quarterly accounts.

The third section provides that "any person or persons who shall violate the provisions of this act, or any rules and regulations in pursuance thereof made by the Secretary of the Interior, shall be deemed guilty of a misdemeanor, and upon conviction shall be fined in any sum not exceeding five hundred dollars, and to which may be added imprisonment for any term not exceeding six months."

When violations of the provisions of this act are brought to the attention of this office, either by report from the registers and receivers or by other persons who, as good citizens, may feel an interest in the protection of the public timber, if the facts are deemed sufficient to warrant prosecutions they will be brought to the attention of the Department of Justice, that instructions may be given to the proper district attorney to institute legal proceedings.

RULES AND REGULATIONS PRESCRIBED BY THE SECRETARY OF THE INTERIOR FOR THE PROTECTION OF TIMBER, ETC.

Rules and regulations prescribed by the Secretary of the Interior for the protection of the timber and of the undergrowth growing upon mineral lands of the United States, not subject to entry under existing laws of the United States, except for mineral entry in the States of Colorado and Nevada, or in the Territories of New Mexico, Arizona, Utah, Wyoming, Dakota, Idaho, or Montana, and in all other mineral districts of the United States, in compliance with the provisions of an act approved June 3, 1878, entitled "An act authorizing the citizens of Colorado, Nevada, and the Territories to fell and remove timber on the public domain for mining and domestic purposes."

With the view to and the intention of preserving the young timber and undergrowth upon the mineral lands of the United States, and to the end that the mountain sides may not be left denuded and barren of the timber and undergrowth necessary to prevent the precipitation of the rainfall and melting snows in floods upon the fertile arable lands in the valleys below, thus destroying the agricultural and pasturage interests of the mineral and mountainous portions of the country, I do hereby make and cause to be promulgated, by virtue of the power vested in me by the act entitled "An act authorizing the citizens of Colorado, Nevada, and the Territories (excepting Washington Territory) to fell and remove timber on the public domain for mining and domestic purposes," the following rules and regulations:

1. Section 2461 Revised Statutes is still in force in all of the States and Territories named in the bill, and its provisions may be enforced, as heretofore, against persons trespassing upon any other than lands which are in fact mineral, or have been withdrawn as such; and in all cases where trespasses are committed upon the timber upon public lands which are not mineral, the trespassers will be prosecuted under said section.

2. It shall be unlawful for any person to cut or remove, or cause to be cut or removed, from any of the mineral lands of the United States any timber or undergrowth of any kind whatsoever less than 8 inches in diameter, and any person so offending shall be liable to be fined, in compliance with the provisions of the third section of said act, in any sum not exceeding five hundred dollars, and to which may be added imprisonment for any term not exceeding six months.

3. It shall be the duty of the register and receiver of each and every local land office in whose district any mineral land may be situated, to ascertain by personal observation, or by sending persons to examine the same from time to time, whether any timber is being cut or used upon any such lands except for the purpose of building, or for agricultural, mining, or other domestic purposes, or whether any timber is cut in violation of these rules and regulations within their respective land districts; and if they shall ascertain that there is any such violation they shall immediately report the same to this office, giving in detail the facts, designating the location of the land, and if surveyed giving description by legal subdivisions, giving the names and residences of persons who have violated the provisions of the act above referred to, or the rules and regulations prescribed thereunder, and also the names and residences of witnesses by whom the facts of such violation can be proven.

4. All necessary expenses incurred by registers and receivers for traveling and other necessary expenses in making personal examination, or for the payment of the services and expenses of persons employed to make such examinations, will be paid and allowed to such registers and receivers in making up their next quarterly accounts after such expenses shall have been incurred.

Very respectfully,

J. A. WILLIAMSON,
Commissioner.

DEPARTMENT OF THE INTERIOR,
August 16, 1878.

The foregoing is hereby approved.

C. SCHURZ, *Secretary.*

AN ACT for the sale of timber lands in the States of California, Oregon, Nevada, and in Washington Territory.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That surveyed public lands of the United States within the States of California, Oregon, and Nevada, and in Washington Territory, not included within military, Indian, or other reservations of the United States, valuable chiefly for timber, but unfit for cultivation, and which have not been offered at public sale according to law, may be sold to citizens of the United States, or persons who have declared their intention to become such, in quantities not exceeding one hundred and sixty acres to any one person or association of persons, at the minimum price of two dollars and fifty cents per acre; and lands valuable chiefly for stone may be sold on the same terms as timber lands: *Provided*, That nothing herein contained shall defeat or impair any *bona fide* claim under any law of the United States, or authorize the sale of any mining claim, or the improvements of any *bona fide* settler, or lands containing gold, silver, cinnabar, copper, or coal, or lands selected by the said States under any law of the United States donating lands for internal improvements, education, or other purposes: *And provided further*, That none of the rights conferred by the act approved July twenty-sixth, eighteen hundred and sixty-six, entitled "An act granting the right of way to ditch and canal owners over the public lands, and for other purposes," shall be abrogated by this act; and all patents granted shall be subject to any vested and accrued water rights, or rights to ditches and reservoirs used in connection with such water rights, as may have been acquired under and by the provisions of said act; and such rights shall be expressly reserved in any patent issued under this act.

SEC. 2. That any person desiring to avail himself of the provisions of this act shall file with the register of the proper district a written statement in duplicate, one of which is to be transmitted to the General Land Office, designating by legal subdivisions the particular tract of land he desires to purchase, setting forth that the same is unfit for cultivation, and valuable chiefly for its timber or stone; that it is uninhabited; contains no mining or other improvements, except for ditch or canal purposes, where any such do exist, save such as were made by or belong to the applicant, nor, as deponent verily believes, any valuable deposit of gold, silver, cinnabar, copper, or coal; that deponent has made no other application under this act; that he does not apply to purchase the same on speculation, but in good faith to appropriate it to his own exclusive use and benefit; and that he has not, directly or indirectly, made any agreement or contract, in any way or manner, with any person or persons whomsoever, by which the title which he might acquire from the Government of the United States should inure, in whole or in part, to the benefit of any person except himself; which statement must be verified by the oath of the applicant before the register or the receiver of the land office within the district where the land is situated; and if any person taking such oath shall swear falsely in the premises, he shall be subject to all the pains and penalties of perjury, and shall forfeit the money which he may have paid for said lands, and all right and title to the same; and any grant or conveyance which he may have made, except in the hands of *bona-fide* purchasers, shall be null and void.

SEC. 3. That upon the filing of said statement, as provided in the second section of this act, the register of the land office shall post a notice of such application, embracing a description of the land by legal subdivisions, in his office, for a period of sixty days, and shall furnish the applicant a copy of the same for publication, at the expense of such applicant, in a newspaper published nearest the location of the premises, for a like period of time; and after the expiration of said sixty days, if no adverse claim shall have been filed, the person desiring to purchase shall furnish to the register of the land office satisfactory evidence, first, that said notice of the application prepared by the register as aforesaid was duly published in a newspaper as herein required; secondly, that the land is of the character contemplated in this act, unoccupied and without improvements, other than those excepted, either mining or agricultural, and

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that it apparently contains no valuable deposits of gold, silver, cinnabar, copper, or coal, and upon payment to the proper officer of the purchase-money of said land, together with the fees of the register and receiver, as provided for in case of mining claims in the twelfth section of the act approved May tenth, eighteen hundred and seventy-two, the applicant may be permitted to enter said tract, and, on the transmission to the General Land Office of the papers and testimony in the case, a patent shall issue thereon: *Provided*, That any person having a valid claim to any portion of the land may object, in writing, to the issuance of a patent to lands so held by him, stating the nature of his claim thereto; and evidence shall be taken, and the merits of said objection shall be determined by the officers of the land office, subject to appeal, as in other land cases. Effect shall be given to the foregoing provisions of this act by regulations to be prescribed by the Commissioner of the General Land Office.

SEC. 4. That after the passage of this act it shall be unlawful to cut, or cause or procure to be cut, or wantonly destroy, any timber growing on any lands of the United States, in said States and Territory, or remove, or cause to be removed, any timber from said public lands, with intent to export or dispose of the same; and no owner, master, or consignee of any vessel, or owner, director, or agent of any railroad, shall knowingly transport the same, or any lumber manufactured therefrom; and any person violating the provisions of this section shall be guilty of a misdemeanor, and, on conviction, shall be fined for every such offense a sum not less than one hundred nor more than one thousand dollars: *Provided*, That nothing herein contained shall prevent any miner or agriculturist from clearing his land in the ordinary working of his mining claim, or preparing his farm for tillage, or from taking the timber necessary to support his improvements, or the taking of timber for the use of the United States; and the penalties herein provided shall not take effect until ninety days after the passage of this act.

SEC. 5. That any person prosecuted in said States and Territory for violating section two thousand four hundred and sixty-one of the Revised Statutes of the United States, who is not prosecuted for cutting timber for export from the United States, may be relieved from further prosecution and liability therefor upon payment, into the court wherein said action is pending, of the sum of two dollars and fifty cents per acre for all lands on which he shall have cut or caused to be cut timber, or removed or caused to be removed the same: *Provided*, That nothing contained in this section shall be construed as granting to the person hereby relieved the title to said lands for said payment; but he shall have the right to purchase the same upon the same terms and conditions as other persons, as provided hereinbefore in this act: *And further provided*, That all moneys collected under this act shall be covered into the Treasury of the United States. And section four thousand seven hundred and fifty-one of the Revised Statutes is hereby repealed, so far as it relates to the States and Territory herein named.

SEC. 6. That all acts and parts of acts inconsistent with the provisions of this act are hereby repealed.

Approved June 3, 1878.

AN ACT authorizing the citizens of Colorado, Nevada, and the Territories to fell and remove timber on the public domain for mining and domestic purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That all citizens of the United States and other persons, *bona-fide* residents of the State of Colorado or Nevada, or either of the Territories of New Mexico, Arizona, Utah, Wyoming, Dakota, Idaho, or Montana, and all other mineral districts of the United States, shall be, and are hereby, authorized and permitted to fell and remove, for building, agricultural, mining, or other domestic purposes, any timber or other trees growing or being on the public lands, said lands being mineral, and not subject to entry under existing laws of the United States, except for mineral entry, in either of said States, Territories, or districts of which such citizens or persons may be at the time *bona-fide* residents, subject to such rules and regulations as the Secretary of the Interior may prescribe for the protection of the timber and of the undergrowth growing upon such lands, and for other purposes: *Provided*, The provisions of this act shall not extend to railroad corporations.

SEC. 2. That it shall be the duty of the register and the receiver of any local land office in whose district any mineral land may be situated to ascertain from time to time whether any timber is being cut or used upon any such lands, except for the purposes authorized by this act, within their respective land districts; and, if so, they shall immediately notify the Commissioner of the General Land Office of that fact; and all necessary expenses incurred in making such proper examinations shall be paid and allowed such register and receiver in making up their next quarterly accounts.

SEC. 3. Any person or persons who shall violate the provisions of this act, or any rules and regulations in pursuance thereof made by the Secretary of the Interior, shall be deemed guilty of a misdemeanor, and, upon conviction, shall be fined in any sum not exceeding five hundred dollars, and to which may be added imprisonment for any term not exceeding six months.

Approved June 3, 1878.

During the past fiscal year the efforts were continued for the suppression of depredations upon public timber under the plan approved by the Department, and indicated in my last annual report, by appointing or detailing special agents to investigate and collect testimony.

Early in the past fiscal year it became necessary, owing to the exhaustion of funds, to discontinue the services of several of these special agents. Among these were the agents engaged in Arkansas, Alabama, Colorado, Florida, Michigan, Montana, and Arizona. The appropriations of April 30 and June 20, 1878, above referred to, have enabled the renewal of the service of some and the appointment of additional agents to be made. There are agents in the field at present, as follows:

In Alabama, one; Arkansas, one; California, one; Florida, two; Michigan, one; Minnesota, two; Mississippi, one; Nebraska, one, and in Wisconsin, one.

In Alabama, proceedings have been commenced before a United States commissioner, and the parties held for trial, against the owners of a mill in Butler County, who have offered to make payment for the trespass on condition of the dismissal of the suit. In Arkansas no suits have yet been instituted, but reports from the agent represent extensive trespasses.

In California, eight indictments are pending against trespassers. A survey has been made of the lands involved, indicating trespass to the extent of 54,070 trees, amounting in value to \$84,899.61.

In Colorado, a special agent was engaged in collecting testimony to sustain the suits pending there, four in number. He reports the trespass in that State as being co-extensive with the public timber that is accessible.

In Florida, the efforts of the agents have been mainly to procure testimony to sustain the indictments pending in the United States court for that State, sixteen in number, involving 6,400 logs, 1,400,000 feet of lumber, 26,000 barrels rosin, and 100 barrels of turpentine, amounting to \$111,800. One of these indictments is for forgery, and four for perjury committed in making fraudulent homestead entries to shield trespass. They have also reported some new cases. In two cases, one embracing 100 and the other 800 logs, the logs were delivered to the agents on their demand. In these cases as well as a similar one in Wisconsin, where the logs were surrendered to the agent, in pursuance of instructions from the Department, the receiver of the United States land office within whose district the logs are situated has been directed to take possession, and after giving public notice, to make sale of the same at public auction or at private sale, as in his judgment may be best to subserve the interests of the United States. No sale of logs to be made, however, except at the highest price obtainable therefor, and for cash. The moneys received therefor, less the expense of advertising and of the sale, to be covered into the Treasury of the United States the same as other public moneys.

In Louisiana, the total amount of seizures that had been made under civil process issued by the United States court were 3,006,234 feet of lumber and 122,504 logs. There were nine actions pending in the United States court in regard to these seizures. The defendants in all but one case have confessed judgment. Surveys have been made to identify the lands and establish the cutting and removal to sustain these cases. There has been much difficulty attending the disposition and sale of the logs and lumber seized. Combinations were formed to prevent competition at the sales by the marshal. The special agents of the government were threatened with violence, and were embarrassed by being arrested

upon various charges preferred against them for acts done strictly in the performance of their duty, and required to give bail for their appearance before the court of the parish. The result of the efforts for sale have been to realize \$30,281 for a part of the logs and lumber seized.

In Minnesota, action has been continued in the United States court against trespassers, resulting in the confession of judgment and payment by the parties for the timber cut in nine cases, for 708,430 feet, the sum of \$2,961.55 prior to the June term of the court, and in obtaining judgment in five cases at said term amounting to \$2,224.41. Previous to my last annual report, the special agents in Minnesota had reported 56,957,808 feet (board measure) of white pine logs cut and removed from the vacant public lands in that State, for which no payment appears to have been made. In addition to this, cases of a similar character in Wisconsin have been reported, embracing 765,000 feet. Cases were also reported where purchasers of logs cut from the public lands had retained money to be paid to the government as "stumpage."

In compliance with directions from the Department, the special agents have been instructed to make demand at once upon all such trespassers to make settlements in said cases as far as possible on the basis of the price fixed by this Department at the time the trespasses were committed, the settlements to be made in the presence of the receiver of the United States land office in whose district the trespass was committed, and the moneys paid to that officer. And in all cases where the parties refuse to settle and pay for the timber thus unlawfully taken, the agents are directed to report such refusals at once to the United States district attorney, in order that proceedings may at once be taken to compel a settlement of such cases. The agents have also, in compliance with instructions from the Department, been directed, if there are persons who are now holding moneys retained from trespassers upon the public lands upon the purchase of logs cut by trespassers to settle with the government, to demand of such persons that they forthwith pay such moneys to a receiver of some United States land office, making a full statement of the time and circumstances under which they received the logs for which the moneys were detained, where they were cut, by whom, and when. The receivers of the United States land office in Minnesota and Wisconsin have been advised of these instructions, and directed, upon receipt of any moneys as above mentioned, to cover the same into the Treasury as other moneys received from the sales of public lands, making report of the same in their next monthly return, specifying in such return the amount so received and covered into the Treasury, and from whom received.

A careful investigation of the cases pending in the United States circuit court for the southern district of Mississippi was made, and such as seemed to be attended with difficulty in obtaining testimony to sustain, or where the amount involved was very limited, were dismissed, leaving fifteen cases, involving seizures of 48,000 logs and 3,805,620 feet of lumber. The defendants in three of these have confessed judgment and relinquished all claims to the logs and lumber involved, amounting to 12,500 logs. Energetic efforts have been put forth to obtain testimony to sustain the remaining suits; surveying parties have been employed in running the boundary lines to establish the identity of the lands trespassed upon, and it is thought complete evidence to sustain all the pending suits will be ready at the November term of the court, if it should be held, which, owing to the extensive ravages of yellow fever, is at present doubtful. One of the agents of this office, M. A. Carter, esq., who was engaged in procuring this testimony, fell a victim

of this disease at Mississippi City, October 1. He was a most faithful and efficient officer, possessed of great courage and energy, and had rendered service of the highest value. His loss is seriously felt and deplored.

The reports from Wisconsin indicate trespassing to a very large extent. Many cases have been reported. Surveys of the land and scaling of timber have been made to enable legal proceedings in the United States court to be entered upon.

The special agent reports considerable trespassing in Nebraska, and the cutting and removal from the public lands of a large number of railroad ties in Wyoming and Utah; 450,000 are reported as lying piled along the railroad track in Wyoming, and 130,000 in Utah. Surveys have been made in Wyoming to identify the public lands from which a portion of these were cut.

In Montana a number of seizures of wood and lumber cut from the public lands were made in November and December of last year. Where the parties were willing to make settlement, they were permitted to do so on the payment for the wood at the rate of \$1 per cord and for the lumber at the rate of \$2 per thousand. In regard to the general effect of the effort to suppress timber depredations in that Territory, the special agent of this office reported December 20, 1877:

The majority of the people of this Territory recognize the justness of the Department's efforts in stopping depredations committed upon the public lands by cutting and removing timber therefrom, and will promptly pay the tax imposed without contesting it.

Also :

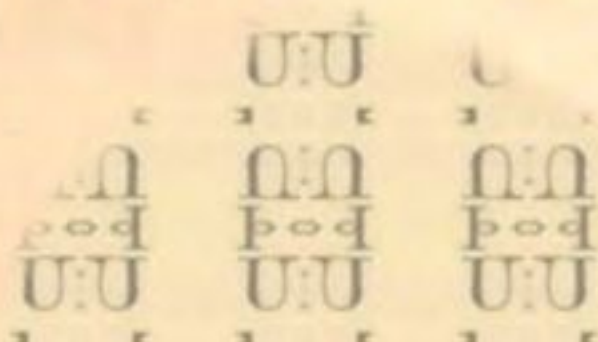
Notwithstanding the telegrams and letters sent to the Department by interested persons, the price of cordwood in Helena is lower by one and two dollars per cord than before the seizures.

Previous to the seizures the special agent had reported large quantities of cordwood in the possession of parties held for sale at \$8 per cord. Under date of August 24, 1878, he says :

The imposition of the \$1 per cord tax on fuel broke the combination formed here by speculators, and enabled consumers to purchase at less rates than ever before, as it let in small dealers, who, having no other means of obtaining a livelihood, were glad to bring in fire-wood; it also caused people to use dry and fallen timber, which had not heretofore been used. The dealers still continue to sell cord-wood at low rates, viz, four to five dollars per cord, but they are slowly working back into green timber of all sizes (since the removal of the tax), it being more salable. The tax upon lumber of \$2 per thousand had this effect: The large dealers, considering that the price of lumber was too low, made a combination, and having bought out or run off small saw-mills, advanced the price of lumber \$10 per thousand; therefore, when the tax was imposed shortly after, they could not well make the consumer pay the additional \$2 per thousand; hence they felt aggrieved and made many misrepresentations. The lumber dealers now inform me that they considered the tax fair and equitable, and were willing to pay it, believing that the government should protect the public lands from depredations, and receive something for the timber cut therefrom.

PRIVATE LAND CLAIMS.

In addition to the survey, sale, or other disposal of the public lands, the business of this office includes the work of segregating therefrom by the proper surveys numerous private claims arising under grants of various kinds from foreign powers which exercised sovereignty over portions of the country before they came under the jurisdiction of the United States, and of transferring the title to the claimants, pursuant to laws providing therefor. All matters of this kind, with others partaking in some measure of the same character, are placed under the super-



vision of a distinct division of this office. During the fiscal year ending June 30, 1878, the work done in that division was as follows, viz :

California private land claims patented	5
New Mexico and Colorado private land claims patented	5
New Mexico donation land claims patented	3
Oregon and Washington Territory donation land claims patented	59
Louisiana and Florida private land claims patented	54
Indian claims patented	23
Final approvals of entries made with certificates of location, act of June 22, 1860, and supplemental legislation	52
Cases in Louisiana and Florida for which scrip has been issued	23
Number of New Mexico and Colorado private land claims reported to Congress...	2
Total	231

The above statement has reference only to such cases as have been *finally* settled.

Preliminary examinations have been made in a large number of cases, some of which have been passed for patent, while others have been suspended on account of imperfections, and are now the subject of correspondence. A number of cases have been decided and are now on appeal or awaiting the expiration of the time within which appeal may be taken, or, having been decided on appeal, are now waiting the execution of the decision by the proper officers.

In addition to the foregoing, there have also been examined, approved, and recorded the assignments of 778 certificates of location under act of June 22, 1860, and supplemental legislation.

The total number of letters received in this division of the office during the fiscal year was 1,431, and the total number of letters written was 1,162, covering 1,544 record pages.

The following statement is submitted with regard to the condition of the work in the same division at the beginning of the current fiscal year :

Number of California claims docketed and not finally adjudicated	48
Number of confirmed New Mexico and Colorado private land claims reported and not finally adjudicated	35
Number of New Mexico and Arizona donations reported and not finally adjudicated	16
Number of Oregon and Washington Territory donations reported but not finally settled	501
Number of scrip cases reported under act June 2, 1858, and awaiting action	87
Number of scrip cases under act June 22, 1860, and supplemental legislation on hand and awaiting action	2
Number of claims reported under act June 22, 1860, and supplemental legislation to be reported to Congress by this office	29
Number of Florida, Louisiana, Mississippi, Michigan, and Indiana cases on hand awaiting action	16
Total	734

It would be impossible, without a long and tedious examination of the files, containing many thousand cases both patented and unpatented, to approximate with any degree of certainty the number of claims not patented, and for which patent certificates and special plats of survey are on file here, in the States of Alabama, Mississippi, Louisiana, Arkansas, Florida, Missouri, Illinois, Indiana, and Michigan.

These claims are disposed of as called up by the parties in interest or their duly authorized attorneys, *e. g.* : An application being made for a patent in a specific case, an examination is first made of the files, of which there are alphabetical indexes showing the name of the confirmer, and if the necessary papers are found constituting the basis of patent, they are examined to ascertain that the confirmation is properly

set forth therein, which fact must also be carefully inquired into from our own records; that the claim is correctly surveyed, and, generally, that the papers are in all respects correct; then, if the examination results satisfactorily, the patent is issued; while, on the other hand, if the papers are not found, the party is so advised, and that such papers must be filed before action is taken here.

The foregoing statement has reference merely to such cases as are pending upon applications for patents.

The claims, aggregating many thousands in the above-mentioned States, which have been reported by the various boards of commissioners and confirmed by Congress from time to time, might be properly termed cases in this office for action, although in numerous cases the papers constituting the bases of patents are not on file here.

The reports are here, however, and as this office is repeatedly called upon to furnish information upon questions of title, they furnish ample facilities for that purpose.

I give decisions as follows having reference to private land claims:

DEPARTMENT OF THE INTERIOR, GENERAL LAND OFFICE,
Washington, D. C., December 14, 1876.

SIR: I have examined the application of Hosmer & Company, of this city, for certificates of location under the act of June 2, 1858, in satisfaction of the confirmed private land claim of Pierre Joseph Mais, numbered A 1650 in the report of Gerrard, Wailes and Fitz, of December, 1811 (American State Papers, D, Greene's Edition, Vol. 2, p. 711), submitted with your letter of the 15th of September, 1875, inclosing seventeen certificates of location, issued by you on the 31st of August, 1875, under the above act, in satisfaction of said claim No. 299 A to 299 Q inclusive.

The claim in question is founded on a Spanish patent, and was presented to the board of land commissioners for the western district of Louisiana, appointed and acting under the act of Congress approved on the 2d day of March, 1807, entitled "An act for ascertaining and adjusting the titles and claims to land within the Territory of Orleans and the district of Louisiana" by Pierre Joseph Maes, and was confirmed by them for 1,354.04 acres December 11, 1811, by virtue of authority vested in them by the fourth section, the act of Congress passed on the 3d day of March, 1807, entitled "An act respecting claims in the Territories of Orleans and Louisiana."

It appears by an old diagram filed with the papers in the case, that the claim was surveyed by Daniel Coleman, assistant for Samuel Cook, deputy surveyor, under instructions from the surveyor of the lands of the United States south of Tennessee, and in conformity with the request of the confirmer; which survey appears to have included claim B 1657 of the said Mais, embraced in the same report, and lying on the east side of bayou Kashata, and claim A 1650 lying on the west side of said bayou; which survey of claim A 1650 would appear to embrace sections and parts of sections 25, 26, 27, 34, 35, and 36 in township 7 north, of range 8 west, Louisiana; but the survey was never approved or represented upon the official plats. The greater portion of the land supposed to be embraced in said claim has been disposed of by the United States. The act of Congress of June 2, 1858, under which the legal representatives of Mais claim certificate of location, provided for the issue of such certificates only in cases of confirmation by that act (see third section) "or where any private land claim *has been confirmed by Congress*, and the same, in whole or in part, has not been located or satisfied either for a want of a specific location prior to such confirmation, or for any reason whatsoever, other than a discovery of fraud in such claim subsequent to such confirmation.

The claim in question having been confirmed by the board of commissioners as aforesaid, cannot properly be said to come within the provisions of the act of 1858, which limits the issue of certificates of locations to claims which have been "*confirmed by Congress*."

The language is plain and unambiguous, and it is a settled principle in law, that in the construction of statutes, "words in a statute are never to be construed as unmeaning and surplusage if a construction can be legitimately found which will give force to and preserve all the words in the act." (Dwarris on Stats. 180.)

The certificates of location, 299 A to 299 Q, in the name of Pierre Joseph Maes, issued by you August 13, 1875, in satisfaction of his private land claim No. 1650, in the report aforesaid, are therefore held for cancellation, subject to an appeal to the honorable Secretary of the Interior, within sixty days from receipt of notice, should the parties interested so desire, and you will so notify them.

If an appeal should be filed, you will transmit the same, together with such papers

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as may be submitted therewith, to this office, but if no appeal be filed at the expiration of sixty days from receipt of notice by the parties in interest, you will so notify this office, when the certificates referred to will be finally canceled and you notified accordingly.

Very respectfully,

J. A. WILLIAMSON,
Commissioner.

UNITED STATES SURVEYOR GENERAL,
New Orleans, La.

DEPARTMENT OF THE INTERIOR, OFFICE OF THE SECRETARY,
Washington, D. C., April 24, 1878.

SIR: I have considered the questions arising upon the application for the issue of certificates of location under the act of June 2, 1858, in satisfaction of the alleged confirmed private land claim of Pierre Joseph Mais, in Louisiana, on appeal from your decision of December 14, 1876.

The application is based upon the provision contained in the third section of the act of June 2, 1858, which reads as follows:

"That in all cases of confirmation by this act, or where any private land claim has been confirmed by Congress, and the same, in whole or in part, has not been located or satisfied, either for want of a specific location prior to such confirmation, or for any reason whatsoever, other than a discovery of fraud in such claim subsequent to such confirmation, it shall be the duty of the surveyor general of the district in which such claim was situated, upon satisfactory proof that such claim has been so confirmed, and that the same, in whole or in part, remains unsatisfied, to issue to the claimant, or his legal representatives, a certificate of location for a quantity of land equal to that so confirmed and unsatisfied."

The claim of Mais was founded upon a complete French patent, and was presented to the board of land commissioners for the western district of Louisiana, acting under the provisions of an act of Congress, approved March 2, 1805, and was recognized and reported by the board. This action, however, was not necessary to protect the claim if the same was based upon a complete and perfect title, for in that case it did not require a confirmation by the Government of the United States.

The decision of the board in favor of the claimant became final, as against the United States, under the provisions of the act of March 3, 1807, and Congress has never taken action directly in the case. The action of Congress providing that the decision of the board of commissioners should be final, was not a *confirmation* of the claim by that body, as that term is used in the act of June 2, 1858. The terms of the latter statute make it necessary that a claim, to be recognized as confirmed, must have been one which required favorable action on the part of Congress, in order to fix its status.

Under the act of April 18, 1814, a patent, no doubt, might have issued for the claim, but as it did not, and as it cannot be recognized as one confirmed by Congress, this department, in the absence of further remedial legislation, is unable to afford relief to the applicant.

Your decision is, therefore, affirmed, and the papers transmitted with your letter of May 9, 1877, are herewith returned.

Very respectfully,

A. BELL,
Acting Secretary.

The COMMISSIONER GENERAL LAND OFFICE.

DAVID C. HARDEE.

Under the certificate of location, act of March 3, 1819, it is necessary for the claimant to establish the fact of settlement and cultivation of the claimed land prior to April 15, 1813, in order to secure the benefits of the act, and the local officers were empowered to require the production of satisfactory evidence upon this point.

The Commissioner of the General Land Office has the power to supervise, approve, or reverse the action of the local officers in issuing certificates to claimants under this act.

The act of June 2, 1858, was for the relief of those land claimants whose claims had been confirmed by Congress, and the third section of the act of March 3, 1819, expressly excepted from confirmation all settlement claims in conflict with prior confirmed grants. It is the duty of claimants to clearly show that a claim has been confirmed before scrip can issue.

DEPARTMENT OF THE INTERIOR, OFFICE OF THE SECRETARY,
Washington, D. C., April 8, 1878.

SIR: I have considered the case of David C. Hardee *vs.* The United States, on appeal from your decision of April 9, 1877, approving the action of the surveyor general of Louisiana refusing to issue certificates of location to said Hardee as the legal representative of William Hatchell.

The application was made under the provision of the third section of the act of Congress approved June 2, 1858 (11 Stat., p. 294), as follows: "That in all cases of con-

firmation by this act, or where any private land claim has been confirmed by Congress, and the same in whole or in part has not been located or satisfied, either for want of a specific location prior to such confirmation, or for any reason whatsoever other than a discovery of fraud in such claim subsequent to such confirmation, it shall be the duty of the surveyor general of the district in which such claim was situated, upon satisfactory proof that such claim has been so confirmed, and that the same, in whole or in part, remains unsatisfied, to issue to the claimant or his legal representatives a certificate of location for a quantity of land equal to that so confirmed and unsatisfied."

The first section of the act of Congress approved April 25, 1812 (2 Stat., 713), entitled "An act for ascertaining the titles and claims to lands in that part of the Louisiana which lies east of the river Mississippi and island of New Orleans," provided for the appointment of a commissioner for land claims situated in the tract of country south of the Mississippi Territory, east of the Mississippi River, and west of Pearl River. It also provided for a commissioner for the tract between the Pearl and Perdido Rivers. The eighth section of the act provided, "That the said commissioners be, and they are hereby, authorized and required to collect, and report to Congress at their next session, a list of all the actual settlers on land in said districts, respectively, who have no claims to land derived either from the French, British, or Spanish Governments, and the time at which such settlements were made."

James O. Cosby was appointed commissioner for the tract of land between the Mississippi and Pearl Rivers.

The records show that William Hatchell appeared before Commissioner Cosby and presented his claim for a tract of land, alleging settlement in the year 1810. His name was included in the list of actual settlers reported to Congress by the said commissioner June 7, 1813. (Am. State Papers, Public Lands, vol. 3, p. 64, Green's ed.)

The third section of the act of Congress approved March 3, 1819, entitled "An act for adjusting the claims to land, and establishing land offices in the districts east of the island of New Orleans" (3 Stat., p. 528), is as follows:

"And be it further enacted, That every person, or his or her legal representative, whose claim is comprised in the lists or register of claims reported by the said commissioners, and the persons embraced in the list of actual settlers or their legal representatives, not having any written evidence of claim reported as aforesaid, shall, where it appears by the said reports or by the said lists that the land claimed or settled on had been actually inhabited or cultivated by such person or persons in whose right he claims, on or before the fifteenth day of April, one thousand eight hundred and thirteen, *be entitled to a grant for the land so claimed, or settled on, as a donation: Provided,* That not more than one tract shall be thus granted to any one person, and the same shall not contain more than six hundred and forty acres, and that no lands shall be thus granted which are claimed or recognized by the preceding sections of this act."

The twelfth section of the act is as follows:

"And be it further enacted, That the books of the former commissioners in which the claims and evidence of claims are recorded shall be lodged with the registers of the land office for the respective districts; and the register and receiver of public moneys in each respective district shall have power to examine the claims recognized, confirmed, or provided to be granted by the provisions of this act, as also claims to the right of pre-emption, and they shall make out to each claimant entitled in their opinion thereto a certificate according to the nature of the case, under such instructions as they may receive from the Commissioner of the General Land Office, and on presentation at the General Land Office of such certificate for a confirmed claim, or for a donation according to the provisions of this act, and where it shall appear to the satisfaction of the Commissioner of the General Land Office that the certificate has been fairly obtained, according to the true intent and meaning of this act, then and in that case a patent shall be granted, in like manner as for other lands of the United States."

On the 20th of March, 1819, the Commissioner of the General Land Office addressed the register at Saint Helena, La., as follows: "I also inclose a copy of the act of Congress (of 3d instant) under which you are appointed and which defines your duties. * * * Section 3 confirms to certain persons 640 acres each, and grants a donation of 640 acres to such persons in said lists as the commissioners reported as actual settlers on April 15, 1813. Certificates of donation and patents (from this office) will issue for the claims confirmed by this section. The twelfth section also authorizes the register and receiver to examine the claims in said reports and grant certificates according to the nature of the cases."

On the 22d of the same month the Commissioner addressed the register at Jackson Court-House, La., as follows: "Section 3 confirms to certain persons 640 acres each. This section blends lists or registers of claims with lists of actual settlers, and grants a donation of 640 acres to such persons in said lists as the commissioners reported as actual settlers on the 15th of April, 1813." This statement is explained by an examination of the list reported by Commissioner Cosby, in which appear the names of many

persons with the date of their alleged settlement; also the names of persons without an accompanying date of settlement.

It would seem from the letters above quoted that the Commissioner of the General Land Office at that date, and upon the first consideration of the act, construed the same as confirming to each person reported by Commissioner Cosby as a settler on the 15th of April, 1813, 640 acres of land.

Under date of November 15, 1819, the Commissioner of the General Land Office addressed the register at Jackson Court-House as follows (referring to the act of March 3, 1819): "The true idea of an actual settler I take to be one who inhabits and cultivates a tract of public land. The second section has the words 'have been cultivated and inhabited,' the third section has the words 'have been actually inhabited or cultivated,' preceded by the words 'claimed or settled on,' which clearly convey the idea of residence and cultivation. In those cases it is expected you will class separately those in which the evidence is satisfactory from those where the evidence does not, in your opinion, establish the settlement and cultivation. Your powers are sufficient to enable you to procure such testimony as may be required to prove whether the person claiming a right by actual settlement is entitled to the benefit of the act. The objects of the act are to give proof of the good faith of the government relative to the Spanish and British claims, and to secure the United States from imposition by fraud and speculation."

From these instructions it is evident that the Land Department upon further consideration of the act of March 3, 1819, held that it was necessary for the claimant to establish the fact of settlement and cultivation prior to April 15, 1813, in order to entitle him to the benefits of the provisions of the same, and that under the provisions of the twelfth section of the act the local officers were empowered and authorized to require the production of satisfactory evidence upon this point before issuing a certificate upon which patent could be obtained. In other words, neither the act of March 3, 1819, or the instructions issued thereunder by the Land Department can be correctly interpreted as recognizing in each and every person reported by Commissioner Cosby as a settler prior to April 15, 1813, an absolute right to 640 acres of land. A right to such a tract was based and depended upon the fact of his being an actual settler prior to that date. The report made by Commissioner Cosby was not conclusive evidence that he was such an actual settler. Had Congress entertained a different view on this point, it is not reasonable to presume that it would have incorporated into the act of March 3, 1819, the provisions contained in the twelfth section authorizing the local officers to examine the claims confirmed, recognized, or provided to be granted. Settlement claims are evidently those designated as claims, "provided to be granted"; this is made clear by the language of the third section of the act, that every person, &c., "be entitled to a grant for the land so claimed."

The act of May 8, 1822 (3 Stat., p. 707), gave to the register and receiver the power of directing the location and manner of surveying the claims recognized in the act of 1819. In the very elaborate letter of instructions in relation to the claims under the act of March 3, 1819, issued to the local officers at Saint Helena by the Commissioner of the General Land Office, August 13, 1823, it is stated: "The third section confirms the claims of all the actual settlers previous to the 15th of April, 1813, to a tract of land not exceeding 640 acres, as a donation. These claims must be so surveyed as to include the improvements, and not to interfere with any claims confirmed by the two first sections of the act. * * * The twelfth section gives the power to the register and receiver to examine the claims recognized, confirmed, or provided to be granted by the provisions of the act, and claims to the right of pre-emption, and to grant certificates to those claimants who, in their opinion, are entitled to them. This clause gives to the register and receiver a supervisory power over all the claims reported by the commissioner and confirmed by the act, so far at least as to withhold their certificate in all cases where there is suspicion of fraud, or where there is good reason to believe that the original report has been founded on an improper view of the claim."

This is another interpretation, by the Land Department, of the provisions of the act of March 3, 1819, and is perfectly consistent with that established a few years before, as above cited. The local officers were required to examine and pass upon the sufficiency of the proof of actual settlement on the part of each claimant.

By the twelfth section of the said act, the register and receiver were instructed to make out to each claimant entitled, in their opinion, thereto, a certificate according to the nature of the case, under such instructions as they may receive from the Commissioner of the General Land Office. It follows that, unless the certificate issued to David Hardee, the legal representative of William Hatchell, by the register and receiver at New Orleans, June 20, 1872, was issued on a confirmed claim, in accordance with the law and the instructions thereunder, as above recited, it cannot be recognized as valid by the Land Department.

In my opinion, there can be no doubt as to your power to supervise, approve, or reverse the action of the local officers in issuing certificates to claimants under the act of 1819. The language of the twelfth section of the act on this subject is as follows:

"And where it shall appear to the satisfaction of the Commissioner of the General Land Office that the certificate has been fairly obtained, according to the true intent and meaning of the act, then and in that case a patent shall be granted," &c. Such has been the practice of the administration of the land laws, and it is recognized and enforced by the provisions of the first section of the act of July 4, 1836, reorganizing the General Land Office.

Under date of June 20, 1872, the register and receiver at New Orleans issued the following certificate: "In pursuance of an act of Congress approved on the 3d March, 1819, entitled 'An act for adjusting the claims to land and establishing land offices in the districts east of the island of New Orleans,' we certify that William Hatchell, his heirs or legal representatives, are entitled to a section of land of 640 acres in the parish of Feliciana, and so reported by James O. Cosby in his report of actual settlers, dated 7th June, 1813, No. 213. (See American State Papers, vol. iii, page 64, Duff Green's edition.) From an examination of the original papers of the said claim, it appears that the claimant claims under a settlement made by himself in the year 1810, and described as follows." No description of the tract, however, is given.

The question, therefore, arises whether this certificate was properly issued. This question can only be answered by ascertaining: 1st. Whether William Hatchell was an actual settler upon a particular tract of land prior to April 15, 1813, as defined by the law and the instructions of the land department. 2d. If so, whether the land upon which it is alleged that the settlement was made was within the limits of a claim confirmed by the first and second sections of the act of March 3, 1819.

These are questions of fact. The local officers state that "from an examination of the original papers of said claim it appears that the confinee claims under a settlement made by himself in the year 1810."

The original papers on file in the case are the petition and evidence of William Hatchell, in the following form:

*"To the commissioners of the land claims west of Pearl River and east of the Mississippi,
north of the island of New Orleans:*

"The undersigned claims a tract or parcel of land by virtue of settlement made on the first of April, one thousand eight hundred and ten, which ever since and at this present has been kept in cultivation, about sixteen miles south of the line of demarkation on the waters of Sandy Creek, as witness whereof I set my name this 7th day of May, 1813.

“WILLIAM HATCHELL.

"SAMUEL LEE.

"JAMES BROWN, Sr."

LAND OFFICE.

GEORGE REDDEN }
v8.
WILLIAM BROWN. }

William Hatchell, a witness on the part of Redden, being sworn, saith: "I settled in the year 1810. I was at Mr. Liles' before I settled, and I asked Mr. Liles if he, Liles, knew of any vacant place where I could settle. He said he did. I asked him where it was. He said it lay above him on the creek, and was evacuated and vacant by the Spanish laws; it was the claim of William Liles alluded to. I told him there might be a dispute, and I would not settle on it, but Liles said it was vacant land."

Cross-examined by BROWN:

"I was not in the country when the place was settled."

By REDDEN :

"The place was grown over in briars and bushes. Mr. Liles had cultivated the place, as he stated to me, because he had not enough at home.

his
"WILLIAM + HATCHELL.
mark.

"WILLIAM RENCHER, R."

There is also on file the petition of William Hatchell for a survey of the tract claimed by him, as follows:

"To the register and receiver of the land claims at Saint Helena:

"Your petitioner respectfully shows that he has obtained a certificate from Charles S. Carsbey for a claim of land situated in the parish of East Feliciana; your petitioner therefore pray that you grant an order of survey, as follows, to wit: Beginning on a sectional line one quarter of a mile post that stands between himself and William Kerbey; thence running north on said line until it joins land of Parson Carter; thence

west one mile; thence south one mile; thence east one mile, to the place of beginning. Your petitioner further shows that he has agreed with his adjoining claimants of land, and wishes the order of survey as above, and your petitioner, as in duty bound, will ever pray.

"September 12, 1824.

"ABRAHAM NESOM.
"WILLIAM HATCHELL.
"WILLIAM KERBEY."

[The lines between this claim and the claim of Brown proved by Mr. Kerbey.]

The records before this department do not show that any further action was ever taken in this case. The claim was not surveyed, and no patent has issued for the same. There is no explanation why the survey was not made; no reason assigned for the apparent laches on the part of Hatchell or his immediate representatives in failing to press their claim for the term of years from 1824 to 1872, or 1858, the date of the remedial act. As it is a legal presumption that the officers of the government would perform their duty, is it not reasonable to conclude, in the absence of explanation to the contrary, that a sufficient reason exists why title has not been perfected?

It would appear from the transcript of the original documents, now before this department, that the original petition of Hatchell to Commissioner Cosby was sufficient to satisfy that officer that his name should be reported in the list of actual settlers; but it has, I think, been established from the citations from the laws and the instructions that Congress did not deem that report, of itself, sufficient evidence upon which to found an unqualified grant.

The evidence reported was no doubt submitted before the register and receiver at Saint Helena. At what date, however, is not stated.

This inference is founded upon the fact that the words "land office" appear in connection with the same, and that in his petition for a survey, under the act of May 8, 1822, Hatchell states that he has obtained a certificate from Charles S. Carsbey for a claim of land, referring undoubtedly to Charles S. Cosby, register at the Saint Helena land office from the year 1819 to December 24, 1822, and before whom, no doubt, Hatchell appeared to make proof, as provided by the 12th section of the act of March 3, 1819.

This evidence is indefinite, unsatisfactory, and unsupported; it fails to connect the tract upon which he claims to have settled with that described in his petition to Cosby. This is a defect, however, which might be cured by additional evidence, direct or circumstantial.

In his petition for a survey, Hatchell describes the tract claimed as follow: "Beginning on a sectional line one quarter of a mile post that stands between himself and William Kirbey; thence running north on said line until it joins land of Parson Carter thence west one mile; thence south one mile; thence east one mile, to the place of beginning."

In the original petition to Cosby we have the fact established that the tract claimed was situated on the waters of Sandy Creek, about 16 miles south of the line of demarkation, viz, the line between Mississippi and Louisiana. In the petition for a survey we have the fact established that the tract claimed was situated south of the land of Parson Carter in the parish of East Feliciana. With these facts before us, we turn to the plats of survey of that portion of the State on file in your office, and find located in the northern part of township 4 south, range 1 west about 18 miles (by survey) south of the line of demarkation mentioned by Hatchell, the claim of Parson Carter; we also find that a little south of said land the Big Sandy Creek is located. These facts establish with all reasonable certainty the location of the land claimed by Hatchell. We find that to follow the lines designated by Hatchell would locate his land in such a form as to conflict with other claims in whole, or at least with the greater portion thereof. The claims in question are those of heirs of Luther Smith, A. 95; Thomas Lilly & Co., A. 21; the heirs of Richard Swarey, A. 72; and V. S. Pintado, A. 110; and are found to be included in the report of James O. Cosby as claims founded on complete grants derived from either the French, British, or Spanish Governments, and confirmed by the first section of the act of March 3, 1819 (American State Papers, vol. 3, p. 35). It follows that the claim of Hatchell, being in conflict with these superior claims, was not confirmed, according to the terms of the third section of the act of March 3, 1819.

These facts satisfactorily explain why the claim of Hatchell was not surveyed and patented many years ago. The officers of the government undoubtedly performed their duty, and ascertained at that time that the claim was not valid or confirmed. The question is now fairly presented to the department, what course should be pursued in cases of this character.

The names of several hundred persons as actual settlers were reported to Congress by Commissioner James O. Cosby. Action, with reference to these claims, was taken by that body March 3, 1819, and May 8, 1822, and a way provided by which titles might be perfected. It is a reasonable presumption that the parties interested prose-

cuted their claims; it is also a legal presumption that the officers of the government performed their duty when the claims were presented, and determined the same upon the merits of each case.

The act of June 2, 1858, was passed for the relief of a certain *class* of claimants; not for the relief of all whose names were reported by Commissioner Cosby, nor for all of those who had originally presented claims, but only for those whose claims had been *confirmed* by Congress. The third section of the act of March 3, 1819, expressly excepted from confirmation all settlement claims in conflict with prior confirmed grants. Of this class, Hatchell's is one.

The third and twelfth sections of the same act confirmed only those claims where settlement was made prior to April 15, 1813.

There is nothing in the act of June 2, 1858, which relieves the land department of the duty of ascertaining the fact that a claim has been confirmed before scrip can issue. And the applicant must establish that fact to the satisfaction of the department, both in regard to the matter of settlement and the matter of location. In view of the fact that many years have elapsed since the claims were initiated, the probable loss of many documents, the difficulty of definitely locating the land, and the death of most of the witnesses, it cannot be expected that the evidence submitted will be of that positive and convincing character that would be required to establish a claim of a recent date. The original documents should be submitted in all cases, unless their loss is accounted for; additional evidence, parol or documentary, either direct or circumstantial, may be admitted. With reference to the matter of location, it is not necessary that the exact limits of the original claim should be defined, unless in close proximity to a confirmed private land claim, but its approximate location must be established in order that the department may be satisfied that it does not conflict with claims recognized by the first and second sections of the act of March 3, 1819. The surveyor general should be instructed to give all the aid and assistance in his power in the determination of the status of each case. The local officers should be instructed to submit the evidence, with their report and recommendation, to you, for your consideration, and should you be satisfied that certificate should issue, you will direct the register and receiver to issue the same, and, upon presentation to the surveyor general, certificate of location should issue as required by the act of June 2, 1858.

Each case must depend upon its merits, as the question of confirmation is one of fact.

Experience and reason demonstrate that these precautions are necessary in order to protect the government from imposition by fraud and speculation.

It is alleged that the claims recognized by the third section of the act of March 3, 1819, were confirmed, and that the requirements of the twelfth section and the instructions issued thereunder November 15, 1819, and August 13, 1823, had reference to applications for patents for specific tracts of land, and that they do not apply to applications for scrip under the remedial act. I cannot concur in this view. The objects are the same. In the one case, before a patent can issue the land department must be satisfied that the tract for which patent is asked has been confirmed. This is ascertained by means of evidence establishing the fact of settlement, and by means of a survey establishing the location of the tract; one object of the survey is to show that the claim does not conflict with prior grants. In the other case, applications for scrip can be based only upon confirmed claims, and in order to ascertain the status of said claims the evidence of settlement and location must be satisfactory.

It is also alleged that the practice of your office prior to August 26, 1872, was to recognize the claims reported as confirmed. The presumption is, however, that in each case the Commissioner of the Land Office was satisfied that the certificate was fairly obtained, according to the true intent and meaning of the law. If, in some instances, hardship should result from the inability of the applicant to furnish the necessary proof, relief must be sought in additional legislation.

The certificate issued to the representative of William Hatchell was erroneously issued, and your decision, approving the action of the surveyor general, is affirmed.

The papers in the case are herewith returned.

Very respectfully,

C. SCHURZ, *Secretary.*

The COMMISSIONER OF THE GENERAL LAND OFFICE.

SOUTHERN PUBLIC LANDS.

The act of Congress of the 22d June, 1876 (19 Stat., pp. 73 and 74), in providing for the restoration to market for sale at ordinary private entry of all the public lands in the five States of Alabama, Mississippi, Louisiana, Arkansas, and Florida, made necessary a vast amount of work, in addition to the current official business, for the purpose of examining the records in this office, in order to select the vacant tracts and include

them in descriptive lists; for the comparison of these with corresponding lists made up from the records of the several district land offices and the correction of any errors found to exist therein; the preparation of executive proclamations, and the offering of the land for sale in the manner prescribed in chapter 7, title 32, of the Revised Statutes of the United States. Since the statement in reference to this matter, to be found on pages 49 and 50 of the last annual report, was drawn up, the work has been pursued, until now comparatively little remains to be done to bring it to a close.

1. The vacant public lands in the State of *Alabama*, included in the former Saint Stephens, Demopolis, Greenville, Elba, Montgomery, and part of the former Lebanon land districts, comprising more than one-half of the State, have been proclaimed and will be offered, a portion at Montgomery, on the 19th November, 1878, and the remainder at Mobile, on the 26th of the same month. This leaves the lands in the northern portion of the State, embraced in the former Tuscaloosa and Huntsville districts and in the northern portion of the former Lebanon district, unproclaimed. These lands have been listed and examined and are ready to be proclaimed for sale, but this action has been deferred until an investigation can be had, in view of allegations having been made that they are in great part *mineral* and not legally subject to sale as agricultural lands.

2. The vacant public lands in the State of *Mississippi* have all been proclaimed, and they were to have been offered at the district land office at Jackson, Miss., a portion October 29, 1878, and the residue December 3, 1878; but in view of the prevalence of the yellow fever in that section of the country, the offering proclaimed for the former date has been postponed, and will take place at the latter.

3. Lists have been made up from the records of this office of all the lands found on examination to be vacant in the State of *Louisiana*. About two-fifths of the lists of these lands required to be made out from the records of the district offices, and sent here for comparison therewith, have been received. It is expected that the residue will be received in a short time, and that the lands in this State will all be proclaimed and offered early in the ensuing year.

4. The public lands in *Arkansas* have all been offered at public sale, pursuant to Presidential proclamation, offerings having been held as follows, viz: One at Harrison, beginning on the 1st October, 1877; one at Little Rock, beginning on the 22d of the same month, and another beginning on the 4th February, 1858; one at Camden, and one at Dardanelle, each beginning on the 4th February, 1858.

5. In the State of *Florida*, a proclamation has been issued for the sale of vacant lands in the former Newnansville land district, south of the base line and east of the Tallahassee meridian, and within the following limits, viz: The base line on the north and the line between townships 19 south and 20 south, on the south; the line between ranges 24 east and 25 east, on the east; and the line between ranges 11 east and 12 east, on the west. These lands are to be offered at the district land office at Gainesville on the 29th October, 1878. Much labor has been devoted to perfecting lists of the vacant lands in the former Saint Augustine and Tampa land districts, and in the course of a few months all the vacant lands in the State will have been offered under said act.

TIMBER AND STONE LANDS.

The act of Congress approved June 3, 1878, entitled "An act for the sale of timber lands in the States of California, Oregon, Nevada, and

Washington Territory," provides a new method of disposing of public lands, as it contains provisions for the sale of surveyed public lands in the States and Territory mentioned which are not yet proclaimed and offered at public sale, which are valuable chiefly for timber or stone, unfit for cultivation, and, consequently, unfit for disposal under the pre-emption and homestead laws. This office has prepared and issued the following circular instructions for giving effect to the provisions referred to, viz:

Circular to the registers and receivers of United States district land offices in California, Oregon, Nevada, and in Washington Territory.

DEPARTMENT OF THE INTERIOR, GENERAL LAND OFFICE,
Washington, D. C., August 13, 1878.

GENTLEMEN: Your attention is directed to the first, second, and third sections of the act of Congress approved June 3, 1878, entitled "An act for the sale of timber lands in the States of California, Oregon, Nevada, and in Washington Territory." These sections provide for the sale of surveyed lands not yet proclaimed and offered at public sale, valuable chiefly for timber and stone, unfit for cultivation, and, consequently, for disposal under the pre-emption and homestead laws.

I refer you to the terms of the act, a copy of which is annexed. The provisions of the sections indicated, which are in specific language, must be strictly observed. When a party applies to purchase a tract thereunder, you will require him to make affidavit that he is a citizen of the United States by birth or naturalization, or that he has declared his intention to become a citizen under the naturalization laws. If native born, parol evidence of that fact will be received. If not native born, record evidence of the prescribed qualification must be furnished. In connection therewith, he will be required to make the sworn statement in duplicate, according to the attached form, No. 1, as provided for in the second section of the act. One of the duplicate statements filed in each case is by the act required to be transmitted to this office, and you will accordingly send up with your monthly returns the duplicate statements to be transmitted for the month.

The evidence in regard to the publication of notice, required to be furnished in the third section of the act, must consist of the affidavit of the publisher or other person having charge of the newspaper in which the notice is published, with a copy of the notice attached thereto, setting forth the nature of his connection with the paper, and that the notice was duly published for the prescribed period. The evidence required in the same section with regard to the non-mineral character of the land and its unoccupied and unimproved condition, must consist of the testimony of at least two disinterested witnesses, who must swear that they know the facts to which they testify from personal inspection of the land and of each of its smallest legal subdivisions, as per form attached, No. 2. This testimony may be taken before the register or receiver, or any officer using an official seal and authorized to administer oaths in the land district in which the land lies. Upon such proof being produced, if no adverse claim shall have been filed, the entry applied for may be allowed in pursuance of the provisions of the act. The receiver will issue his receipt for the purchase money, and the register his certificate of purchase, numbering the entry in the regular cash series. Forms of application, receipt, and certificate are attached, Nos. 3, 4, and 5. You will enter the sale on your books and make the usual returns therefor to this office, noting on the monthly abstracts, opposite the entry, and on the entry papers, a reference to the act of Congress under which allowed. You will forward all the papers in the case with the returns to this office, except the retained duplicate statement filed under the second section of the act, to which you will give the same number with the other papers for the entry, and retain it on the appropriate file with the formal application in your office.

You will be entitled to a fee of \$5 each for allowing an entry under said act, and jointly at the rate of 22½ cents per hundred words for testimony reduced by you to writing for claimants, which will be accounted for as other fees.

If, at the expiration of the sixty days' notice provided for in the third section of the act, an adverse claim should be found to exist, calling for an investigation, you will proceed in the case according to the rules of practice approved November 29, 1875, pages 7, 8, and 9 of pamphlet.

In case of an association of persons making application for such entry, each such person must prove the requisite qualifications, and their names must appear in, and be subscribed to, the sworn statement as in case of an individual person. They must also unite in the regular application for entry, which will be made in their joint names as in other cases of joint cash entry. The forms herewith may be adapted to cover applications of this class.

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The fourth and fifth sections of the act of June 3, 1878, relative to the cutting and removing of timber from the public lands in California, Oregon, Nevada, and in Washington Territory, do not require consideration in connection with the foregoing in regard to the sale of certain lands provided for in the previous sections.

Very respectfully,

J. A. WILLIAMSON,
Commissioner.

Approved:

C. SCHURZ, *Secretary.*

[PUBLIC No. 69.]

AN ACT for the sale of timber lands in the States of California, Oregon, Nevada, and in Washington Territory.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That surveyed public lands of the United States within the States of California, Oregon, and Nevada, and in Washington Territory, not included within military, Indian, or other reservations of the United States, valuable chiefly for timber, but unfit for cultivation, and which have not been offered at public sale according to law, may be sold to citizens of the United States, or persons who have declared their intention to become such, in quantities not exceeding one hundred and sixty acres to any one person or association of persons, at the minimum price of two dollars and fifty cents per acre; and lands valuable chiefly for stone may be sold on the same terms as timber lands: *Provided*, That nothing herein contained shall defeat or impair any bona-fide claim under any law of the United States, or authorize the sale of any mining claim, or the improvements of any bona-fide settler, or lands containing gold, silver, cinnabar, copper, or coal, or lands selected by the said States under any law of the United States donating lands for internal improvements, education, or other purposes: *And provided further*, That none of the rights conferred by the act approved July twenty-sixth, eighteen hundred and sixty-six, entitled "An act granting the right of way to ditch and canal owners over the public lands, and for other purposes," shall be abrogated by this act; and all patents granted shall be subject to any vested and accrued water rights, or rights to ditches and reservoirs used in connection with such water rights, as may have been acquired under and by the provisions of said act; and such rights shall be expressly reserved in any patent issued under this act.

SEC. 2. That any person desiring to avail himself of the provisions of this act shall file with the register of the proper district a written statement in duplicate, one of which is to be transmitted to the General Land Office, designating by legal subdivisions the particular tract of land he desires to purchase, setting forth that the same is unfit for cultivation, and valuable chiefly for its timber or stone; that it is uninhabited; contains no mining or other improvements, except for ditch or canal purposes, where any such do exist, save such as were made by or belong to the applicant, nor, as deponent verily believes, any valuable deposit of gold, silver, cinnabar, copper, or coal; that deponent has made no other application under this act; that he does not apply to purchase the same on speculation, but in good faith to appropriate it to his own exclusive use and benefit; and that he has not, directly or indirectly, made any agreement or contract, in any way or manner, with any person or persons whatsoever, by which the title which he might acquire from the government of the United States should inure, in whole or in part, to the benefit of any person except himself; which statement must be verified by the oath of the applicant before the register or the receiver of the land-office within the district where the land is situated; and if any person taking such oath shall swear falsely in the premises, he shall be subject to all the pains and penalties of perjury, and shall forfeit the money which he may have paid for said lands, and all right and title to the same; and any grant or conveyance which he may have made, except in the hands of bona-fide purchasers, shall be null and void.

SEC. 3. That upon the filing of said statement, as provided in the second section of this act, the register of the land-office shall post a notice of such application, embracing a description of the land by legal subdivisions, in his office, for a period of sixty days, and shall furnish the applicant a copy of the same for publication, at the expense of such applicant, in a newspaper published nearest the location of the premises, for a like period of time; and after the expiration of said sixty days, if no adverse claim shall have been filed, the person desiring to purchase shall furnish to the register of the land-office satisfactory evidence, first, that said notice of the application prepared by the register as aforesaid was duly published in a newspaper as herein required; secondly, that the land is of the character contemplated in this act, unoccupied and without improvements, other than those excepted, either mining or agricultural, and that it apparently contains no valuable deposits of gold, silver, cinnabar, copper, or coal; and upon payment to the proper officer of the purchase-money of said land,

together with the fees of the register and the receiver, as provided for in case of mining claims in the twelfth section of the act approved May tenth, eighteen hundred and seventy-two, the applicant may be permitted to enter said tract, and, on the transmission to the General Land Office of the papers and testimony in the case, a patent shall issue thereon: *Provided*, That any person having a valid claim to any portion of the land may object, in writing, to the issuance of a patent to lands so held by him, stating the nature of his claim thereto; and evidence shall be taken, and the merits of said objection shall be determined by the officers of the land-office, subject to appeal, as in other land cases. Effect shall be given to the foregoing provisions of this act by regulations to be prescribed by the Commissioner of the General Land Office.

SEC. 4. That after the passage of this act it shall be unlawful to cut, or cause or procure to be cut, or wantonly destroy, any timber growing on any lands of the United States, in said States and Territory, or remove, or cause to be removed, any timber from said public lands, with intent to export or dispose of the same; and no owner, master, or consignee of any vessel, or owner, director, or agent of any railroad, shall knowingly transport the same, or any lumber manufactured therefrom; and any person violating the provisions of this section shall be guilty of a misdemeanor, and, on conviction, shall be fined for every such offense a sum not less than one hundred nor more than one thousand dollars: *Provided*, That nothing herein contained shall prevent any miner or agriculturist from clearing his land in the ordinary working of his mining claim, or preparing his farm for tillage, or from taking the timber necessary to support his improvements, or the taking of timber for the use of the United States; and the penalties herein provided shall not take effect until ninety days after the passage of this act.

SEC. 5. That any person prosecuted in said States and Territory for violating section two thousand four hundred and sixty-one of the Revised Statutes of the United States who is not prosecuted for cutting timber for export from the United States, may be relieved from further prosecution and liability therefor upon payment, into the court wherein said action is pending, of the sum of two dollars and fifty cents per acre for all lands on which he shall have cut or caused to be cut timber, or removed or caused to be removed the same: *Provided*, That nothing contained in this section shall be construed as granting to the person hereby relieved the title to said lands for said payment; but he shall have the right to purchase the same upon the same terms and conditions as other persons, as provided hereinbefore in this act: *And further provided*, That all moneys collected under this act shall be covered into the Treasury of the United States. And section four thousand seven hundred and fifty-one of the Revised Statutes is hereby repealed, so far as it relates to the States and Territory herein named.

SEC. 6. That all acts and parts of acts inconsistent with the provisions of this act are hereby repealed.

Approved June 3, 1878.

[Revised Statutes of the United States. Title LXX.—Crimes.—Ch. 4.]

SEC. 5392. Every person who, having taken an oath before a competent tribunal, officer, or person, in any case in which a law of the United States authorizes an oath to be administered, that he will testify, declare, depose, or certify truly, or that any written testimony, declaration, deposition, or certificate by him subscribed is true, willfully and contrary to such oath states or subscribes any material matter which he does not believe to be true, is guilty of perjury, and shall be punished by a fine of not more than two thousand dollars, and by imprisonment, at hard labor, not more than five years; and shall, moreover, thereafter be incapable of giving testimony in any court of the United States until such time as the judgment against him is reversed. [See § 1750.]

[FORM No. 1.]

Sworn statement under act of June 3, 1878.

LAND OFFICE AT _____,
(Date) _____, 18—.

I, _____, of _____ County, _____, desiring to avail myself of the provisions of the act of Congress of June 3, 1878, entitled "An act for the sale of timber-lands in the States of California, Oregon, Nevada, and in Washington Territory," for the purchase of the _____ of section _____, township _____, of range _____, do solemnly [*swear or affirm*] that [*here state whether the applicant is a citizen of the United States by birth or naturalization, or has declared his intention of becoming a citizen;**] that the said land is unfit for cultivation, and valuable chiefly for its [*timber or stone*]; that it is uninhabited; that it contains no mining or other improvements [*here except such as were made for ditch or canal purposes, if any, or such as were made by or belong to the applicant, if any*],

nor, as I verily believe, any valuable deposit of gold, silver, cinnabar, copper, or coal; that I have made no other application under said act; that I do not apply to purchase the land above described on speculation, but in good faith to appropriate it to my own exclusive use and benefit, and that I have not, directly or indirectly, made any agreement or contract, in any way or manner, with any person or persons whatsoever, by which the title which I may acquire from the government of the United States may inure in whole or in part to the benefit of any person except myself.

Sworn to and subscribed before me this — day of —, 18—.

Register [or Receiver].

* In case the party has been naturalized, or has declared his intention to become a citizen, a certified copy of his certificate of naturalization, or declaration of intention, as the case may be, must be furnished.

[FORM No. 2.]

Testimony of witness under act of June 3, 1878.

_____, being called as a witness in support of the application of _____ to purchase the _____ of section —, township —, of range —, _____, testifies as follows:

Ques. 1. What is your post-office address, and where do you reside?

Ans.

Ques. 2. What is your occupation?

Ans.

Ques. 3. Are you acquainted with the land above described by personal inspection of each of its smallest legal subdivisions?

Ans.

Ques. 4. When and in what manner was such inspection made?

Ans.

Ques. 5. Is it occupied, or are there any improvements on it, not made for ditch or canal purposes, or which were not made by or do not belong to the said applicant?

Ans.

Ques. 6. Is it fit for cultivation?

Ans.

Ques. 7. What causes render it unfit for cultivation?

Ans.

Ques. 8. Are there any salines or indications of deposits of gold, silver, cinnabar, copper, or coal on this land? If so, state what they are, and whether the springs or mineral deposits are valuable.

Ans.

Ques. 9. Is the land more valuable for mineral or any other purposes than for the timber or stone thereon, or is it chiefly valuable for timber or stone?

Ans.

Ques. 10. From what facts do you conclude that the land is chiefly valuable for timber or stone?

Ans.

Ques. 11. Do you know whether the applicant has, directly or indirectly, made any agreement or contract, in any way or manner, with any person whatsoever, by which the title which he may acquire from the Government of the United States may inure in whole or in part to the benefit of any person except himself?

Ans.

Ques. 12. Are you in any way interested in this application or in the lands above described, or the timber or stone, salines, mines, or improvements of any description whatever thereon?

Ans.

I hereby certify that witness is a person of respectability; that each question and answer in the foregoing testimony was read to _____ before _____ signed _____ name thereto; and that the same was subscribed and sworn to before me this — day of —, 18—.

[The testimony of two witnesses, in this form, taken separately, required in each case.]

[FORM No. 3.]

Cash application.

No. —.

LAND OFFICE AT —, —,
(Date) —, 18—.

I, —, —, of — County, —, do hereby apply to purchase the — of section —, in township —, of range —, containing — acres, according to the returns of the surveyor-general, for which I have agreed with the register to give at the rate of — per acre.

I, —, —, register of the land-office at — do hereby certify that the lot above described contains — acres, as mentioned above, and that the price agreed upon is — per acre.

—, Register.

[FORM No. 4.]

Cash receipt.

No. —.

RECEIVER'S OFFICE AT —, —,
(Date) —, 18—.

Received from —, —, of — County, —, the sum of — dollars and — cents, being in full for the — quarter of section No. —, in township No. —, of range No. —, containing — acres and — hundredths, at — per acre.

\$—.

—, Receiver.

[FORM No. 5.]

Cash certificate.

No. —.

LAND OFFICE AT —, —,
(Date) —, 18—.

It is hereby certified that, in pursuance of law, —, —, of — County, State of —, on this day purchased of the register of this office the lot or — of section No. —, in township No. —, of range No. —, containing — acres, at the rate of — dollars and — cents per acre, amounting to — dollars and — cents, for which the said — ha— made payment in full as required by law.

Now, therefore, be it known that on presentation of this certificate to the Commissioner of the General Land Office the said — shall be entitled to receive a patent for the lot above described.

—, Register.

ISLANDS AND BEDS OF MEANDERED LAKES, SLOUGHS, AND PONDS.

In response to numerous inquiries and applications relative to the survey of meandered lakes where the waters of the same have receded, and in sections of country not embraced in any surveying district, a circular was issued, under date July 13, 1874, by Hon. S. S. Burdett, at that time Commissioner of this Office, which, in addition to rulings herein quoted, furnished applicants with information relative to the manner of procedure in cases where surveys were desired. The circular reads as follows:

The beds of lakes (not navigable), sloughs, and ponds over which the lines of the public surveys were not extended at the date of the original survey, but which, from the presence of water at the date of such survey, were meandered, are held to be the property of the United States; and whenever, by evaporation or the operation of any other cause, natural or artificial, the waters of such lake, slough, or pond have so permanently receded or dried up as to leave within the unsurveyed area dry land fit, in ordinary seasons, for agricultural purposes, such dry land is subject to survey and sale under general laws regulating the disposal of the public domain. Such surveys will be ordered and, upon approval, disposition proceeded with in the following cases:

1st. Where the waters have so permanently receded or disappeared as to permit during the ordinary season (not on the ice) the actual extension of the lines of survey, and the establishment and marking of corners in the manner required by law, over the whole area of the bed of such former lake.

2d. Where the waters have not generally disappeared, but where they have so far

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permanently receded as to leave a margin of dry land fit for cultivation between the original meander lines and the remaining waters of sufficient area to admit of the survey and of the establishment of at least three of the corners of a quarter section.

3d. The Commissioner of the General Land Office will consider the question of ordering a survey of margins not admitting the laying off of one hundred and sixty acres, but not less than forty acres.

Under the above rulings, surveys have been made, among which those of *Pistakee, George, and Wolf Lakes* are the most important.

The original subdivisional surveys of township 46 north, range 9 east, in Lake County, Illinois, in which Pistakee (now known in its locality as Grass Lake) is situated, were made in the year 1838. The meander lines of the original surveys were so run as to leave a wide margin between them and the actual water-lines of the lake, and in some cases they were extended across bold highlands. Upon application, supported by affidavit, a survey was ordered in the latter part of 1875 and completed in February, 1876. The returns, which were approved, showed a total area embraced within the original meanders of 5,425 acres, of which some 600 acres were desirable agricultural lands; 2,361 were of the character of marsh-meadow land, subject to annual overflow, the remaining area being covered by the shallow waters of the lake and by Fox River, which flows through it. The accuracy of the survey and accompanying descriptions were disputed by resident and non-resident interested parties; remonstrances, accompanied by affidavits of somewhat extraordinary import, were filed in opposition to the acceptance of the survey, and its approval was for the time suspended. It was also found that the testimony in the case was so conflicting in its nature as to require an examination in the field, and, accordingly, a special examiner from this office proceeded to the locality in question under the following instructions, bearing date June 5, 1877:

SIR: You are hereby appointed special examiner of surveys, and instructed to inspect and report upon the condition of the survey made in township 46 north, range 9 east, third principal meridian, Illinois, by Alexander Wolcott, under instructions from this office dated December 4, 1875.

Conflicting statements relative to the survey have been filed in this office since the approval of the plat and field notes, and the object of the examination is to ascertain the truth or falsity of such statements.

Against the survey, it is alleged that no durable landmarks were placed in the ground by Mr. Wolcott, and that few of such as were placed now remain; that the survey could only have been made on the ice, on account of the depth of the water; that there are only about 300 acres of dry land within the original meanders of the Pistakee Lake, in township 46 north, range 9 east.

On the other hand, it is alleged that the surveyed lands have, in a great measure, become dry and fit for agricultural purposes, and that the survey was actually made as shown by the returns, and not on the ice.

Copy of the instructions to Mr. Wolcott for the survey is herewith inclosed; also copy of the returns of his survey, and copy of his affidavit, dated April 7, relating to the survey.

In making this examination, you will start from some corner well identified by witness trees or other method, and make a careful search for the posts set by Mr. Wolcott, and describe particularly each corner found by you, and where posts are found set in mounds, give the size of the mounds. You are required also to report particularly upon the nature of the lands over which said survey was extended, the quality of the soil, and amount and kind of timber. The examination must be thorough and the report full.

An examination was made in accordance with the foregoing instructions. The report of the same showing the survey in question to be substantially correct, suspension of approval was removed, and the lands were placed subject to disposal in accordance with the laws governing the same.

Lake George is situated in the State of Indiana, in township 37 north, ranges 9 and 10 west. *Wolf Lake* lies to the west of, and, as shown by

the original survey made in 1834, was divided from, the former by a strip of land but a few chains in width. It also extends across the line of the State and that of Lake County into Cook County, Illinois. Applications for a survey of these lakes were made to this office, setting forth that a large portion of the area, which was properly shown in the original survey as water surface, had by permanent recession become surveyable land. The survey was ordered under instructions bearing date September 8, 1874. The returns showed the entire area embraced within the original meander lines of both lakes to be 3,010 acres, of which 2,295 acres were classed as uncovered lands and the remaining 715 acres in two separate areas, covered by water varying in depth from six inches to two feet. Parties who desired benefits from the occupancy of the uncovered lands presented remonstrances against the approval of the returns of the survey, which were, however, after due examination by this office, received and approved. An appeal was taken by the said parties to the honorable Secretary of the Interior. At the close of lengthy discussions, able arguments, and voluminous correspondence the honorable Secretary affirmed the decision previously reached by this office, and the lands embraced in the survey were made subject to disposal.

The matter of the survey and disposal of lands of this class, regarded as accruing to the public domain by reason of the recession of the waters of meandered lakes, sloughs, and ponds, was treated of in my last annual report, pages 11 and 12, and attention is again respectfully directed to the subject. The marginal tracts thus created, though of limited extent, are looked upon by individuals as of sufficient importance to justify demands upon this office for survey and disposal. Where a survey of this character is made it is done at the expense of the applicant, but the party applying is not thereby entitled to special privileges in obtaining possession of the land. In some cases the lines of the public surveys are simply extended over the whole surface embraced within the original meander lines, passing over areas of shallow water. As the clerical labor necessary in the disposal of a few acres is about the same as for a large body of land, special work of this character is far from remunerative to the government, especially when the tracts thus surveyed are disposed of under the homestead laws, and where progress is impeded by contests between opposing parties.

Usually the applications are for survey of lakes so far reduced from evaporation or other causes as to be mainly convertible to agricultural uses; others are susceptible of reclamation by drainage or, where such is desirable under local control, of perpetuation and improvement.

As stated in the last annual report, grave doubts exist as to the right of the General Government to survey and dispose of areas of the character above mentioned existing within the limits of a State. I would, therefore, reiterate my recommendation that any title the United States may possess to the unsurveyed islands and beds of meandered lakes and sloughs (not navigable) be conveyed by act of Congress to the respective States in which they are situated, and such lands thus subjected to the operation of State laws.

Pending the decision of Congress upon this question, surveys of the kind herein described have been discontinued.

ABANDONED MILITARY RESERVATIONS.

With regard to the abandoned military reservations which were authorized to be sold by the act of Congress of February 24, 1871 (16 Stat.,

p. 430), no action has been taken for offering any of the lands embraced therein at public sale since the date of my last annual report, in which the condition thereof was stated on pages 42 and 43. Among these reservations are Fort Sabine, Louisiana; Fort Wayne, Arkansas; Camp McGarry, Nevada; and in part Fort Bridger Reservation in Wyoming Territory. The lands embraced in the reservations just named, except the part of Fort Bridger, still retained for military purposes, have been surveyed, and in one case, that of Fort Wayne, they were appraised, but the price in that case was fixed at the ordinary minimum of \$1.25 per acre. In view of the fact that they are not specially valuable, and as they have on them no improvements belonging to the government, I respectfully renew the recommendation heretofore made of legislation for laying them open to disposal as other public lands.

There are two other abandoned military reservations which I recommend be restored to the public domain to be disposed of under existing laws. One is Fort Thorn, New Mexico, in townships 18 and 19 south, ranges 3, 4, and 5 west. It was surveyed by United States Deputy Surveyor Garretson, in 1857, by direction of the surveyor general of New Mexico, and by request of General John Garland, commander of that military district. The survey was finally paid for by the War Department, and although the reservation was never formally declared by the President, the lands were at one time occupied by the military authorities, and in view of the act of June 12, 1858 (11 Stat., p. 336), prohibiting the disposal of useless military sites, it is considered doubtful whether these lands can be disposed of without a special act of Congress. But settlers have gone upon the lands and in several cases the land officers admitted homestead and pre-emption entries (which have been suspended in this office) supposing that the lands were public lands. The legislation recommended for disposing of these lands should also contain a provision for confirming the entries referred to where found to be free from legal objection in other respects.

The other reservation which is recommended to be restored to the public domain is Camp Floyd, in Utah, declared by the President July 14, 1859, name changed to Fort Crittenden February 6, 1861. The Secretary of War reports that the "post was abandoned July 27, 1861, and not since occupied." This reservation comprises all of Cedar Valley, and is in length 33 miles, and its greatest width 16 miles. The lines of public surveys were extended over it and the settlements of Cedar City and Fairfield were made before the date of the order for reservation, which order includes the settlements. It does not appear that any government improvements exist either on Fort Thorn or Fort Crittenden.

INDIAN LANDS IN KANSAS.

By the provisions of the treaty of January 15, 1838, with the *New York Indians*, they were to cede and relinquish to the United States all their right, title, and interest to the lands secured to them at Green Bay, Wis., by the Menomonee treaty of 1831, except a small tract on which a part of the said Indians then resided, and in consideration of such cession and relinquishment the United States agreed to set apart, as a permanent home for the said Indians, 1,824,000 acres of land, being 320 acres for each soul thereof, as their numbers were computed at that time. The said tract was a strip of land about 150 miles in length by about 19 or 20 miles in width, situate directly west of the State of Missouri, in the southeastern part of Kansas, in townships 23 to 26 south, inclusive, of ranges 8 to 25 east, inclusive, adjoining the Cherokee neutral

and Osage lands on the south. It was further provided, that in case of the failure of any of the said Indians to accept and agree to remove thereto within five years thereafter, or within such time as the President of the United States might from time to time appoint, such Indians should forfeit to the United States all interest in the lands so set apart. The land was eventually treated as public land, and the entire reservation was offered for sale December 3 and 17, 1860, by Presidential proclamation No. 667, except certain tracts covered by individual Indian locations, which embraced sixteen sections in townships 23 and 24 south, of ranges 24 and 25 east, and for which certificates of allotment, dated September 14, 1860, had been issued to thirty-two of said Indians for 320 acres of land each, and such other lands as were appropriated by law for the use of schools, military, and other purposes. The sixteen sections thus withheld from the above offering were subsequently (by act of February 19, 1873, Statutes at Large, vol. 17, p. 466, and the act of June 23, 1874, Statutes at Large, vol. 18, p. 273), made subject to entry by actual settlers thereon, the moneys arising from such sales to be covered into the Treasury of the United States, in trust for, and to be paid to the aforesaid Indians respectively, to whom the certificates of allotment were issued, or to their heirs, upon proof of their identity to the satisfaction of the Secretary of the Interior, at any time within five years from the date of the passage of the first-named act, and in case of their failure to make such proof within the time specified, then the proceeds of such sales, or so much thereof as should not have been paid under the provisions of the said act of February 19, 1873, became a part of the public moneys of the United States. The first-named act provided that heads of families or single persons over twenty-one years of age, who had made actual settlement and improvement upon, and were *bona-fide* claimants of and occupants, either in person or by tenants, of the aforesaid sixteen sections might, at any time within two years from the promulgation of rules and regulations to be prescribed by the Secretary of the Interior, enter at the proper land office, the said lands so occupied by them, in tracts not exceeding 160 acres, on payment therefor in cash of the appraised value of said tracts respectively, which was to be ascertained by three persons to be appointed by the Secretary, no sale being allowed, however, under the act for less than \$3.75 per acre. The second section of the act of June 23, 1874, provided for payment at the district office at Independence, Kans., by the above parties, under such rules and regulations as the Secretary might prescribe, in two equal installments, the first installment to be payable on or before September 30, 1875, and the remaining installment within one year thereafter, with interest at the rate of 6 per centum per annum from the said 30th day of September, 1875. Pursuant to the above acts the necessary instructions were issued to the district officers at Independence, but only seven entries were made thereunder, covering 880 acres, leaving 9,360 acres unsold. Nothing was done with regard to these lands during the fiscal year ending June 30, 1878.

Miami lands.—Under the first and second sections of the act approved March 3, 1873, entitled "An act to abolish the tribal relations of the Miami Indians, and for other purposes," it was provided that, if the Miami tribe of Indians in the State of Kansas, should signify to the President of the United States their desire to sell the lands reserved for their future homes by the first article of the treaty of June 5, 1854, and remaining unallotted, together with the school section mentioned in said article, the said lands should be appraised by three persons to be appointed by the honorable Secretary of the Interior, such appraise-

ment to include improvements made by the United States and Indians, but not such as were made by the white settlers, and that each *bona-fide* settler occupying any of said lands at the date of the passage of the act, who had made valuable improvements thereon, and who was a citizen of the United States, or had declared his intention to become such, or his heirs at law, should be entitled at any time within one year from the return of said appraisement, to purchase for cash, the land so occupied and improved by him, not to exceed 160 acres in each case, at the appraised value thereof, under such rules and regulations as the Secretary of the Interior might prescribe; that upon the failure of any party to make payment within the time specified, the right of such settler should cease, and it should be the duty of the Secretary to sell the land for cash, either at public sale or on sealed bids, to the highest bidder, at not less than the appraised value, nor less than \$1.25 per acre, after due notice by public advertisement. And all lands before referred to not so occupied and improved by settlers at the date of approval of the act were to be appraised, including all improvements thereon of every character, and sold by direction of the Secretary to the highest bidder, for cash, after due advertisement, either at public sale or on sealed bids, at not less than the appraised value, nor less than \$1.25 per acre, in quantities not exceeding 160 acres. Under section 1, of the act of June 23, 1874, the *bona-fide* settlers above alluded to, were allowed to make payment for their lands at the district office at Topeka, Kans., under rules and regulations to be prescribed by the Secretary, in three equal annual installments, the first installment payable on or before October 30, 1874, and the remaining installments annually thereafter, with interest at the rate of 6 per centum per annum from the date aforesaid. In pursuance of the provisions of the above acts proper instructions were issued to the district officers at Topeka, and thirty-six entries were made by settlers covering an area of 3,698.19 acres. Nothing was done with regard to these lands during the fiscal year ending June 30, 1878.

Kansas trust and diminished-reserve lands.—The annual report of this office for the fiscal year ending June 30, 1876, contains, on pages 20, 21, and 22, a statement of what had then been done by this office for the sale of these lands under the act of June 23, 1874, with a reference also to the subsequent act of July 5, 1876, on the same subject.

Under the former act, twelve entries designated as entries on the Kansas trust lands, and covering 1,207.97 acres, and fifteen, designated as entries on the Kansas trust and diminished reserve lands, and covering 1,148.55 acres, were made, being a total of twenty-seven entries and 2,356.52 acres.

In view of the passage of the act of July 5, 1876, providing for an inquiry by the Secretary of the Interior into the correctness of the appraisement of these lands, and for a reappraisement thereof should he find them to have been appraised beyond their cash value at the date of the act, most of the parties who initiated entries under the act of 1874 have withheld payment of installments of purchase-money since falling due, hoping, it is presumed, that their lands would be reappraised with the rest, and that they would be allowed the benefit of whatever reduction in price might result therefrom. Only one entry of the trust lands and two of the diminished reserve lands have been perfected. This office is not advised as to the result of the inquiry provided for regarding the appraisement of the lands, and no sales were made during the fiscal year.

Shawnee Absentee lands.—By joint resolution of 7th April, 1869, Congress made provision for the sale in tracts not exceeding 160 acres of

what are known as the Shawnee Absentee lands, embraced in the reservation of 200,000 acres, under the treaty with the Shawnees of May 10, 1854, the right of purchase being restricted, however, to parties who were settlers thereon at the date of the resolution. There are a few tracts of the said lands which are still unsold, not having been taken up under the provision referred to. I therefore recommend that the resolution mentioned may be so amended as to allow the purchase of these tracts by settlers without regard to date of settlement, for a reasonable time, and with a provision that any tracts thereafter remaining unsold shall be offered at public sale, and if then unsold, be held subject to sale at ordinary private entry. No sales of these lands were made during the fiscal year.

MILITARY RESERVATIONS.

I have to report that during the fiscal year ending June 30, 1878, reservations of public lands for military purposes were declared, reduced, or enlarged, as follows, viz:

In Washington Territory.—On the 20th March, 1878, the President's order was made approving the existing reservation of Fort Vancouver, as surveyed by Lieutenant Ward in 1874, and confirming the past action of the War Department in regard to it.

In Florida.—By President's order of May 29, 1878, the boundaries of Fort Brooke reservation, as declared January 22, 1877, were slightly modified, and plats have been prepared in this office showing the present reservation, which includes the government buildings, the spring and right of way thereto, and showing the land formerly reserved and now excluded. As the laws allow abandoned military reservations in Florida to be disposed of in the same manner as other public lands, steps have been taken to bring this land into market.

In Montana.—By President's order dated March 14, 1878, a reservation was formally declared for Fort Keogh, on the Yellowstone, at the mouth of Tongue River.

In Nebraska.—By President's order dated April 19, 1878, the reservation for Fort McPherson was enlarged by adding to it sections 2, 4, 6, 8, and 10, of township 11 north, range 28 west, and sections 20, 22, 26, 28, 30, 32, and 34, of township 12 north, range 28 west.

In Arizona.—By President's order dated November 27, 1877, Camp Bowie reservation was enlarged so as to contain 36 square miles.

In Idaho.—By request of the Secretary of War dated October 9, 1877, and of the General of the United States Army, a tract of land bordering on the northwest end of Cœur d'Alene Lake was reserved until a survey could be made by the War Department and the President's order obtained establishing a permanent military reservation.

NEEDED FACILITIES FOR EXEMPLIFICATION OF OFFICIAL RECORDS.

The surveyors general of Louisiana, California, and Oregon are by law provided with official seals; and copies of or extracts from the plats, field notes, records, or other papers on file in their offices, when duly authenticated by seal and signature, may be used in all cases where the original would be evidence. (Rev. Stat., sec. 2224, p. 392.)

Parties desirous of obtaining similar evidence to be found in the offices of other surveyors general are obliged to make application therefor to this office.

In order to avoid inconvenience and expense to which applicants are

liable on account of correspondence with remote sections of the country, I would recommend the passage of an act of Congress extending to the surveyors general not already provided for the same facilities and authority relative to exemplification and authentication of documents belonging to their files now enjoyed by surveyors general in the above-named districts.

In the foregoing report I have endeavored to present a brief statement of the business transacted by this office during the fiscal year ending with the 30th June, 1878, and to exhibit, at least approximately, the character and extent of the duties devolved upon it by existing laws. It will be seen therefrom that the work to be performed is far in excess of the clerical force provided, and that much of it is of a character calling for more than merely clerical ability for its proper performance. The result is to be seen in the extent to which the work of the office has fallen in arrears. Thousands of letters, which should be answered, remain unattended to on the files. Returns of transactions in the surveying and land districts, which should be posted into the books provided for the purpose, remain unposted. Hundreds of contested cases, which should be promptly examined and decided as fast as they arise, are untouched. This condition of things cannot be changed for the better, but on the contrary must grow worse from day to day, as long as the inadequacy of the clerical force is permitted to continue. In the discharge of my duty in this respect, I can but refer to the representations made in my last annual report of the need of an increase of the number of clerks, and a reorganization of the office. It rests with the legislative authority to supply this need by appropriate legislation.

Respectfully submitted.

J. A. WILLIAMSON,
Commissioner.

Hon. C. SCHURZ,
Secretary of the Interior.

No. 1.—*Tabular statement showing the number of acres of public lands surveyed in the following land States and Territories, up to June 30, 1877, during the present fiscal year, and the total of the public lands surveyed up to June 30, 1878; also, the total area of the public domain remaining unsurveyed within the same.*

Land States and Territories.	Areas of public lands in States and Territories.		Number of acres of public lands surveyed.				Total area of public and Indian lands remaining unsurveyed, and of course, unoffered or undisposed of, inclusive of the area of private land claims surveyed up to June 30, 1878.
	In acres.	In square miles.	Up to June 30, 1877.	Prior to June 30, 1877, not heretofore reported.	Within the fiscal year ending June 30, 1878.	Total up to June 30, 1878.	
Wisconsin.....	34, 511, 360	53, 924	34, 511, 360	.....	.....	34, 511, 360	.....
Iowa.....	35, 228, 800	55, 045	35, 228, 800	.....	.....	35, 228, 800	.....
Minnesota.....	53, 459, 840	83, 531	38, 765, 710	48, 791. 51	357, 913. 57	39, 172, 415	14, 287, 425
Kansas.....	51, 770, 240	80, 891	51, 770, 240	.....	.....	51, 770, 240	.....
Nebraska.....	48, 636, 800	75, 995	39, 234, 402	72, 240. 47	630, 164. 02	39, 936, 807	8, 699, 993
California.....	100, 992, 640	157, 801	44, 972, 249	172, 533. 91	1, 202, 618. 59	46, 347, 402	54, 645, 238
Nevada.....	71, 737, 600	112, 090	11, 254, 087	96, 147. 06	188, 656. 38	11, 538, 890	60, 198, 710
Oregon.....	60, 975, 360	95, 274	19, 923, 816	592, 555. 98	611, 489. 76	21, 127, 862	39, 847, 498
Washington.....	44, 796, 160	69, 994	12, 568, 568	679, 660. 55	573, 316. 51	13, 821, 545	30, 974, 615
Colorado.....	66, 880, 000	104, 500	20, 999, 922	69, 363. 92	1, 113, 613. 41	22, 182, 899	44, 697, 101
Utah.....	54, 064, 640	84, 476	8, 374, 534	322, 624. 26	263, 226. 74	8, 960, 385	45, 104, 255
Arizona.....	72, 906, 240	113, 916	4, 666, 883	196, 479. 20	418, 375. 18	5, 281, 737	67, 624, 503
New Mexico.....	77, 568, 640	121, 201	7, 920, 750	9, 701. 41	541, 428. 82	8, 471, 880	69, 096, 760
Dakota.....	96, 596, 480	150, 932	20, 520, 214	.....	939, 198. 01	21, 459, 412	75, 137, 068
Idaho.....	55, 228, 160	86, 294	6, 193, 013	202, 689. 76	438, 306. 30	6, 834, 009	48, 394, 151
Montana.....	92, 016, 640	143, 776	9, 918, 986	146. 66	624, 694. 44	10, 543, 827	81, 472, 813
Wyoming.....	62, 645, 120	97, 883	7, 731, 061	234, 706. 74	135, 281. 13	8, 101, 049	54, 544, 071
Missouri.....	41, 824, 000	65, 350	41, 824, 000	.....	.....	41, 824, 000	.....
Alabama.....	32, 462, 115	50, 722	32, 462, 080	.....	34. 75	32, 462, 115	.....
Mississippi.....	30, 179, 840	47, 156	30, 179, 840	.....	.....	30, 179, 840	.....
Louisiana.....	26, 461, 440	41, 346	25, 232, 044	.....	.....	25, 232, 044	1, 229, 396
Arkansas.....	33, 406, 720	52, 198	33, 406, 720	.....	.....	33, 406, 720	.....
Florida.....	37, 931, 520	59, 268	30, 103, 708	86. 22	1. 75	30, 103, 796	7, 827, 724
Ohio.....	25, 576, 960	39, 964	25, 576, 960	.....	.....	25, 576, 960	.....
Indiana.....	21, 637, 760	33, 809	21, 637, 760	.....	.....	21, 637, 760	.....
Michigan.....	36, 128, 640	56, 451	36, 128, 640	.....	.....	36, 128, 640	.....
Illinois.....	35, 465, 093	55, 414	35, 462, 400	.....	2, 692. 47	35, 465, 093	.....
Indian Territory.....	44, 154, 240	68, 991	27, 003, 990	.....	.....	27, 003, 990	17, 150, 250
Alaska.....	369, 529, 600	577, 390	.....	.....	.....	.....	369, 529, 600
Total.....	1, 814, 772, 648	2, 835, 582	713, 572, 737	2, 697, 727. 65	8, 041, 011. 83	724, 311, 477	1, 090, 461, 171

No. 2.—Statement of public lands sold for cash, and entered under the homestead and timber-culture acts, with the amount of money received therefor, including fees and commissions, from all sources, received at the district offices, for fiscal year commencing July 1, 1877, and ending June 30, 1878.

States, Territories, and land offices.	Fiscal year 1878.	Quantity sold for cash and revolutionary bounty-land scrip, and amount received therefor, includ- ing cash received on commuted home- steads.		Quantity of land entered under the home- stead act, with the amount of govern- ment fees and registers' and receivers' commissions received thereon.				Quantity of land entered under the tim- ber-culture acts of March 3, 1873, and March 13, 1874 (Revised Statutes, sec- tion 2464), with the amount of govern- ment fees and registers' and receivers' commissions received thereon.				Aggregate of acres dis- posed of for cash, and under the homestead and timber-culture acts.	Aggregate amount of money received from cash sales, fees and commissions on homestead and timber-cul- ture entries, and from all other sources.	Incidental expenses.
		Acres.	Amount.	Acres.	Government fees.	Registers' and receivers' commissions.	Total fees and commissions.	Acres.	Government fees.	Registers' and receivers' commissions.	Total fees and commissions.	Acres.	Amount.	Amount.
ALABAMA.	1st half.	194.49	\$256 19	45,815.96	\$3,541 00	\$1,792 00	\$5,333 00	.....	.....	.....	.....	46,010.45	\$5,683 64	\$2,488 34
	2d half..	124.29	1,034 27	54,215.17	4,055 00	2,219 00	6,274 00	.....	.....	.....	.....	54,339.46	7,501 27	3,058 28
	Total	318.78	1,290 46	100,031.13	7,596 00	4,011 00	11,607 00	.....	.....	.....	.....	100,349.91	13,184 91	5,546 62
	1st half.	31.05	141 32	26,475.98	2,070 00	1,102 00	3,172 00	.....	.....	.....	.....	26,507.03	3,483 57	2,276 77
	2d half..	15.96	121 66	20,067.14	1,590 00	1,035 70	2,625 70	.....	.....	.....	.....	20,083.10	2,973 36	2,147 43
	Total	47.01	262 98	46,543.12	3,660 00	2,137 70	5,797 70	.....	.....	.....	.....	46,590.13	6,456 93	4,424 20
Mobile.....	1st half.	11.65	18 55	18,082.31	1,285 00	658 00	1,943 00	.....	.....	.....	.....	18,093.96	1,961 55	1,208 93
	2d half..	86.28	109 55	4,809.73	355 00	312 60	667 60	.....	.....	.....	.....	4,896.01	777 15	818 18
	Total	97.93	128 10	22,892.04	1,640 00	970 60	2,610 60	.....	.....	.....	.....	22,989.97	2,738 70	2,027 11
Grand total .....	.....	463.72	1,681 54	169,466.29	12,896 00	7,119 30	20,015 30	.....	.....	.....	.....	169,930.01	22,380 54	11,997 93
ARKANSAS.	1st half.	30.36	143 07	24,179.23	1,845 00	1,292 23	3,137 23	.....	.....	.....	.....	24,209.59	3,424 80	2,266 99
	2d half..	3,915.35	5,914 22	35,658.32	2,615 00	1,558 86	4,173 86	.....	.....	.....	.....	39,573.67	10,513 15	3,130 91
	Total	3,945.71	6,057 29	59,837.55	4,460 00	2,851 09	7,311 09	.....	.....	.....	.....	63,783.26	13,937 95	5,397 90

No. 2—Statement of public lands sold for cash, and entered under the homestead and timber culture acts, &c.—Continued.

States, Territories, and land offices.	Fiscal year 1878.	Quantity sold for cash and revolutionary bounty-land scrip, and amount receiv- ed therefor, includ- ing cash received on commuted home- steads.		Quantity of land entered under the home- stead act, with the amount of govern- ment fees and registers' and receivers' commissions received thereon.				Quantity of land entered under the tim- ber-culture acts of March 3, 1873, and March 13, 1874 (Revised Statutes, sec- tion 2464), with the amount of govern- ment fees and registers' and receivers' commissions received thereon.				Aggregate of acres dis- posed of for cash, and timber-culture acts.	Aggregate amount of money received from cash sales, fees and commissions on homestead and timber-cul- ture entries, and from all other sources.	Incidental expenses.
		Acres.	Amount.	Acres.	Government fees.	Registers' and receivers' commissions.	Total fees and commissions.	Acres.	Government fees.	Registers' and receivers' commissions.	Total fees and commissions.			
ARKANSAS—Cont'd.	1st half.	23.21	\$393 76	19,371.53	\$1,555 00	\$1,400 27	\$2,955 27	.....	.....	.....	.....	19,394.74	\$3,496 03	\$2,099 62
	2d half.	1,763.93	3,197 40	34,855.09	2,476 00	1,569 88	4,045 88	.....	.....	.....	.....	36,619.02	7,419 28	2,620 24
	Total	1,787.14	3,591 16	54,226.62	4,031 00	2,970 15	7,001 15	.....	.....	.....	.....	56,013.76	10,825 31	4,719 86
	1st half.	1,583.78	2,173 23	24,170.86	1,860 00	1,613 79	3,473 79	.....	.....	.....	.....	25,754.64	5,681 02	2,428 59
	2d half.	2,907.23	3,744 27	47,463.26	3,340 00	1,524 54	4,864 54	.....	.....	.....	.....	50,370.49	8,667 81	2,460 54
	Total	4,491.01	5,917 50	71,634.12	5,200 00	3,138 33	8,338 33	.....	.....	.....	.....	76,125.13	14,348 83	4,889 13
Little Rock	1st half.	476 86	696 08	11,553.39	1,015 00	1,308 18	2,323 18	.....	.....	.....	.....	12,030.25	3,181 26	2,092 06
	2d half.	1,813.34	2,709 35	28,664.29	2,005 00	1,582 22	3,587 22	.....	.....	.....	.....	30,477.63	6,514 57	2,398 70
	Total	2,290.20	3,405 43	40,217.68	3,020 00	2,890 40	5,910 40	.....	.....	.....	.....	42,507.88	9,695 83	4,490 76
Grand total .....	.....	12,514.06	18,971 38	225,915.97	16,711 00	11,849 97	28,560 97	.....	.....	.....	.....	238,430.03	48,807 92	19,497 65
ARIZONA.														
Florence	1st half.	43,818.75	8,157 75	1,120.00	90 00	78 00	168 00	320.00	\$20 00	\$8 00	\$28 00	45,258.75	8,563 75	1,558 89
Florence	2d half.	9,897.26	6,939 25	1,433.40	110 00	96 00	206 00	1,280.00	90 00	36 00	126 00	12,610.66	7,476 25	1,423 28
Total .....	.....	53,716.01	15,097 00	2,553.40	200 00	174 00	374 00	1,600.00	110 00	44 00	154 00	57,869.41	16,040 00	2,982 17

Prescott	1st half ..	1, 887. 87	1, 117 72	320. 00	20 00	12 00	32 00	.....	.....	2, 207. 87	1, 333 72	1, 026 25
Prescott	2d half ..	1, 477. 49	1, 938 13	2, 030. 41	130 00	82 50	212 50	.....	.....	3, 507. 90	2, 433 13	899 99
Total		3, 365. 36	3, 055 85	2, 350. 41	150 00	94 50	244 50	.....	.....	5, 715. 77	3, 766 85	1, 926 24
Grand total		57, 081. 37	18, 152 85	4, 903. 81	350 00	268 50	618 50	110 00	154 00	63, 585. 18	19, 806 85	4, 908 41
CALIFORNIA.												
Humboldt	1st half ..	22, 224. 88	40, 982 73	16, 994. 47	1, 075 00	722 35	1, 797 35	.....	.....	39, 219. 35	43, 500 08	2, 902 65
Humboldt	2d half ..	14, 184. 14	23, 803 95	11, 927. 81	760 00	550 50	1, 310 50	.....	.....	26, 111. 95	25, 576 45	2, 143 41
Total		36, 409. 02	64, 786 68	28, 922. 28	1, 835 00	1, 272 85	3, 107 85	.....	.....	65, 331. 30	69, 076 53	5, 046 06
Independence	1st half ..	12, 593. 69	5, 180 61	2, 960. 00	195 00	150 00	345 00	30 00	12 00	15, 793. 69	5, 936 61	1, 019 91
Independence	2d half ..	4, 824. 42	1, 965 93	2, 220. 00	145 00	196 50	341 50	10 00	4 00	7, 064. 42	2, 507 43	800 00
Total		17, 418. 11	7, 146 54	5, 160. 00	340 00	346 50	686 50	40 00	16 00	22, 858. 11	8, 444 04	1, 819 91
Los Angeles	1st half ..	32, 617. 33	15, 486 90	3, 195. 60	265 00	249 00	514 00	30 00	12 00	36, 292. 93	17, 385 33	2, 411 22
Los Angeles	2d half ..	2, 916. 79	3, 966 77	3, 212. 83	235 00	231 00	466 00	60 00	24 00	6, 626. 44	5, 490 02	1, 819 07
Total		35, 534. 12	19, 453 67	6, 408. 43	500 00	480 00	980 00	90 00	36 00	42, 919. 37	22, 875 35	4, 230 29
Marysville	1st half ..	16, 204. 00	38, 520 55	13, 718. 14	1, 345 00	1, 287 89	2, 632 89	.....	.....	29, 922. 14	42, 396 72	3, 335 10
Marysville	2d half ..	14, 738. 26	34, 214 42	17, 927. 45	1, 300 00	1, 929 30	3, 229 30	.....	.....	32, 665. 71	38, 471 97	3, 162 80
Total		30, 942. 26	72, 734 97	31, 645. 59	2, 645 00	3, 217 19	5, 862 19	.....	.....	62, 587. 85	80, 868 69	6, 497 90
San Francisco	1st half ..	20, 162. 37	34, 923 59	34, 982. 82	2, 330 00	1, 822 50	4, 152 50	.....	.....	55, 145. 19	43, 556 09	3, 000 00
San Francisco	2d half ..	19, 769. 63	29, 993 69	25, 705. 93	1, 440 00	1, 228 50	2, 668 50	10 00	4 00	45, 635. 56	36, 363 69	3, 183 50
Total		39, 932. 00	64, 917 28	60, 688. 75	3, 770 00	3, 051 00	6, 821 00	10 00	4 00	100, 780. 75	79, 919 78	6, 183 50
Sacramento	1st half ..	6, 830. 52	14, 204 00	17, 881. 50	1, 535 00	1, 502 51	3, 037 51	.....	.....	24, 712. 02	19, 287 01	3, 182 09
Sacramento	2d half ..	14, 152. 51	30, 350 21	20, 637. 91	1, 540 00	1, 785 13	3, 325 13	.....	.....	34, 790. 42	35, 090 84	3, 043 00
Total		20, 983. 03	44, 554 21	38, 519. 41	3, 075 00	3, 287 64	6, 362 64	.....	.....	59, 502. 44	54, 377 85	6, 225 69
Stockton	1st half ..	16, 805. 67	23, 581 96	18, 749. 59	1, 220 00	1, 070 36	2, 290 36	40 00	16 00	36, 195. 26	27, 418 32	3, 026 15
Stockton	2d half ..	13, 928. 44	26, 305 92	12, 919. 84	830 00	833 17	1, 663 17	20 00	8 00	27, 088. 28	29, 253 09	3, 161 55
Total		30, 734. 11	49, 887 88	31, 669. 43	2, 050 00	1, 903 53	3, 953 53	60 00	24 00	63, 283. 54	56, 671 41	6, 187 70
Shasta	1st half ..	5, 769. 72	7, 988 23	5, 723. 11	530 00	504 04	1, 034 04	10 00	4 00	11, 652. 83	9, 597 27	766 38
Shasta	2d half ..	5, 135. 70	9, 165 00	4, 334. 05	380 00	425 70	805 70	.....	.....	9, 469. 75	10, 416 70	1, 338 67
Total		10, 905. 42	17, 153 23	10, 057. 16	910 00	929 74	1, 839 74	10 00	4 00	21, 122. 58	20, 013 97	2, 105 05

No. 2.—Statement of public lands sold for cash, and entered under the homestead and timber-culture acts, &c.—Continued.

States, Territories, and land offices.	Fiscal year 1878.	Quantity sold for cash and revolutionary bounty-land scrip, and amount received therefor, includ- ing cash received on commuted home- steads.		Quantity of land entered under the home- stead act, with the amount of govern- ment fees and registers' and receivers' commissions received thereon.				Quantity of land entered under the tim- ber-culture acts of March 3, 1873, and March 13, 1874 (Revised Statutes, sec- tion 2464), with the amount of govern- ment fees and registers' and receivers' commissions received thereon.				Aggregate of acres dis- posed of for cash, and timber-culture acts.	Aggregate amount of money received from cash sales, fees and commissions on homestead and timber-cul- ture entries, and from all other sources.	Incidental expenses.
		Acres.	Amount.	Acres.	Government fees.	Registers' and receivers' commissions.	Total fees and commissions.	Acres.	Government fees.	Registers' and receivers' commissions.	Total fees and commissions.	Acres.	Amount.	
CALIFORNIA—Cont'd.	1st half.	19,139.44	\$17,401.16	11,333.50	\$730.00	\$852.40	\$1,582.40	40.00	\$10.00	\$4.00	\$14.00	30,472.94	\$19,585.56	\$2,332.40
	2d half.	21,877.97	15,907.86	12,520.45	810.00	795.18	1,605.18					34,438.42	18,146.04	2,272.69
	Total	41,017.41	33,309.02	23,853.95	1,540.00	1,647.58	3,187.58	40.00	10.00	4.00	14.00	64,911.36	37,731.60	4,605.09
	1st half.	9,321.22	14,937.43	6,165.37	585.00	682.66	1,267.66	2,462.48	160.00	64.00	224.00	17,949.07	16,910.09	2,216.97
	2d half.	4,741.92	7,938.61	6,576.72	420.00	681.00	1,101.00	3,230.12	230.00	92.00	322.00	14,548.76	9,884.61	2,016.89
Total		14,063.14	22,876.04	12,742.09	1,005.00	1,363.66	2,368.66	5,692.60	390.00	156.00	546.00	32,497.83	26,794.70	4,233.86
Grand total		277,938.62	396,819.52	249,667.09	17,670.00	17,499.69	35,169.69	8,189.42	610.00	244.00	854.00	535,795.13	456,773.92	47,135.05
COLORADO.	1st half.	582.37	2,385.00	998.46	70.00	54.00	124.00					1,580.83	4,068.00	2,686.44
	2d half.	823.97	3,181.44	1,402.05	95.00	129.00	224.00	160.00	10.00	4.00	14.00	2,386.02	4,587.44	1,921.62
	Total	1,406.34	5,566.44	2,400.51	165.00	183.00	348.00	160.00	10.00	4.00	14.00	3,966.85	8,655.44	4,608.06
	1st half.	4,197.45	7,196.77	14,515.93	1,255.00	1,515.75	2,770.75	7,854.60	580.00	232.00	812.00	26,567.98	12,452.96	3,582.48
	2d half.	5,017.57	9,528.28	13,755.42	885.00	1,417.50	2,302.50	6,224.15	570.00	220.00	790.00	24,997.14	14,063.68	3,000.00
Total		9,215.02	16,725.05	28,271.35	2,140.00	2,933.25	5,073.25	14,078.75	1,150.00	452.00	1,602.00	51,565.12	26,516.64	6,582.48

Del Norte.....	1st half.	5,619.29	7,061.98	7,120.00	445 00	303 00	748 00	440.00	30 00	12 00	42 00	13,179.29	11,269.98	3,186.60
Del Norte.....	2d half.	2,795.19	3,894.00	8,712.43	550 00	372 00	922 00	320.00	20 00	8 00	28 00	11,827.62	5,097.00	2,163.06
Total		8,414.48	10,955.98	15,832.43	995 00	675 00	1,670 00	760.00	50 00	20 00	70 00	25,006.91	16,366.98	5,349.66
Fair Play	1st half.	4,512.15	6,625.29	2,079.63	130 00	90 00	220 00					6,591.78	7,153.29	1,302.70
Fair Play	2d half.	3,074.70	4,360.90	2,903.03	185 00	117 00	302 00					5,977.73	5,095.90	1,439.35
Total		7,586.85	10,986.19	4,982.66	315 00	207 00	522 00					12,569.51	12,249.19	2,742.05
Lake City	1st half.	1,560.04	2,485.75	878.80	55 00	33 00	88 00	155.98	10 00	4 00	14 00	2,594.82	3,442.25	1,955.08
Lake City	2d half.	571.82	2,135.00	1,040.00	65 00	48 00	113 00					1,611.82	2,694.00	1,200.70
Total		2,131.86	4,620.75	1,918.80	120 00	81 00	201 00	155.98	10 00	4 00	14 00	4,206.64	6,136.25	3,155.78
Pueblo.....	1st half.	3,900.58	5,676.51	11,494.41	725 00	549 00	1,274 00	320.00	20 00	8 00	28 00	15,714.99	7,807.81	2,103.82
Pueblo.....	2d half.	6,133.22	8,966.70	20,094.14	1,225 00	1,084 50	2,309 50					26,227.36	11,940.70	2,661.03
Total		10,033.80	14,643.21	31,588.55	1,950 00	1,633 50	3,583 50	320.00	20 00	8 00	28 00	41,942.35	19,748.51	4,764.85
Grand total		38,788.35	63,497.62	84,994.30	5,685 00	5,712 75	11,397 75	15,474.73	1,240 00	488 00	1,728 00	139,257.38	89,673.01	27,202.88
DAKOTA.														
Bismarek	1st half.	240.00	600 00	1,600.00	120 00	96 00	216 00	1,441.82	90 00	36 00	126 00	3,281.82	1,040.00	772.00
Bismarek	2d half.	427.25	1,068 00	2,693.08	190 00	178 74	368 74	5,359.16	350 00	140 00	490 00	8,479.49	2,056.24	969.62
Total		667.25	1,668 00	4,293.08	310 00	274 74	584 74	6,800.98	440 00	176 00	616 00	11,761.31	3,096.24	1,741.62
Deadwood	1st half.	324.91	442 50									324.91	605.50	2,162.13
Deadwood	2d half.	1,478.95	769 00									1,478.95	1,299.00	1,060.38
Total		1,803.86	1,211 50									1,803.86	1,904.50	3,222.51
Fargo.....	1st half.	6,686.29	14,101.20	20,730.82	1,695 00	940 56	2,635 56	25,910.21	1,650 00	660 00	2,310 00	53,327.32	20,113.81	3,118.95
Fargo.....	2d half.	12,702.18	26,336.86	114,277.50	7,145 00	3,966 93	11,111 93	144,077.92	9,250 00	3,700 00	12,950 00	271,057.60	53,265.69	3,088.25
Total		19,388.47	40,438.06	135,008.32	8,840 00	4,907 49	13,747 49	169,988.13	10,900 00	4,360 00	15,260 00	324,384.92	73,379.50	6,207.20
Springfield.....	1st half.	1,221.44	1,883.03	13,633.51	855 00	383 54	1,238 54	5,133.19	350 00	140 00	490 00	19,988.14	3,859.57	1,164.86
Springfield.....	2d half.	3,635.29	5,544.18	44,030.03	2,770 00	1,193 61	3,963 61	27,666.62	1,760 00	704 00	2,464 00	75,331.94	12,623.79	2,861.39
Total		4,856.73	7,427.21	57,663.54	3,625 00	1,577 15	5,202 15	32,799.81	2,110 00	844 00	2,954 00	95,320.08	16,483.36	4,026.25
Sioux Falls	1st half.	9,098.30	16,789.26	50,133.53	3,170 00	1,988 11	5,158 11	28,959.16	2,000 00	800 00	2,800 00	88,190.99	25,682.37	3,162.50
Sioux Falls	2d half.	17,667.02	29,070.72	357,597.17	22,485 00	10,284 41	32,769 41	239,394.99	15,520 00	6,208 00	21,728 00	614,649.18	86,972.13	3,110.50
Total		26,765.32	45,859.98	407,730.70	25,655 00	12,272 52	37,927 52	268,354.15	17,520 00	7,008 00	24,528 00	702,840.17	112,654.50	6,473.00

No. 2.—Statement of public lands sold for cash, and entered under the homestead and timber-culture acts, &c.—Continued.

States, Territories, and land offices.	Fiscal year 1878.	Quantity sold for cash and bounty-land scrip, and amount received therefor, includ- ing cash received on commuted home- steads.		Quantity of land entered under the home- stead act, with the amount of govern- ment fees and registers' and receivers' commissions received thereon.				Quantity of land entered under the tim- ber-culture acts of March 3, 1873, and March 13, 1874 (Revised Statutes, sec- tion 2464), with the amount of govern- ment fees and registers' and receivers' commissions received thereon.				Aggregate of acres dis- posed of for cash, and timber-culture acts.	Aggregate amount of money received from cash sales, fees and commissions on homestead and timber-cul- ture entries, and from all other sources.	Incidental expenses.
		Acres.	Amount.	Acres.	Government fees.	Registers' and receivers' commissions.	Total fees and commissions.	Acres.	Government fees.	Registers' and receivers' commissions.	Total fees and commissions.			
DAKOTA—Continued.	1st half	1,838.00	\$2,497 52	25,930.67	\$1,640 00	\$830 60	\$2,470 60	9,277.80	\$640 00	\$256 00	\$896 00	37,046.47	\$6,143 12	\$2,140 15
	2d half	3,275.17	5,297 77	108,930.06	6,850 00	3,063 11	9,913 11	92,583.18	6,000 00	2,400 00	8,400 00	204,791.41	24,869 88	3,580 25
	Total	5,116.17	7,795 29	134,860.73	8,490 00	3,893 71	12,383 71	101,860.98	6,640 00	2,656 00	9,296 00	241,837.88	31,013 00	5,720 40
	Grand total	58,587.80	104,400 04	739,556.37	46,920 00	22,925 61	69,845 61	579,804.05	37,610 00	15,044 00	52,654 00	1,377,948.22	238,531 10	27,390 98
FLORIDA.	1st half	213.80	4,744 73	86,230.76	6,275 00	2,715 67	8,990 67					13,735.40	14,231 40	3,841 34
	2d half	341.77	6,195 71	64,342.85	4,490 00	2,109 45	6,599 45					12,795.16	12,885 16	3,431 73
	Total	555.57	10,940 44	150,573.61	10,765 00	4,825 12	15,590 12					26,530.56	27,116 56	7,273 07
IDAHO.	1st half	19,628.26	6,618 91	8,729.16	565 00	495 00	1,060 00	1,311.96	110 00	44 00	154 00	29,669.38	8,198 91	1,489 60
	2d half													267 75
	Total	19,628.26	6,618 91	8,729.16	565 00	495 00	1,060 00	1,311.96	110 00	44 00	154 00	29,669.38	8,198 91	1,757 35

Lewiston	1st half.	1,906.71	2,383.41	10,365.88	650 00	420 00	1,082 00	6,963.21	500 00	200 00	700 00	19,235.80	4,660 91	883 58
Lewiston	2d half.	3,508.34	4,685.73	18,460.06	1,185 00	789 00	1,974 00	13,894.36	970 00	388 00	1,358 00	35,862.76	9,016 34	2,792 35
Total		5,415.05	7,069.14	28,825.94	1,835 00	1,221 00	3,056 00	20,857.57	1,470 00	588 00	2,058 00	55,098.56	13,677 25	3,675 93
Grand total.....		25,043.31	13,688 05	37,555.10	2,400 00	1,716 00	4,116 00	22,169.53	1,580 00	632 00	2,212 00	84,767.94	21,876 16	5,433 28
IOWA.														
Des Moines.....	1st half.	89.40	123 50	1,187.60	120 00	591 97	711 97	360.00	70 00	28 00	98 00	1,637.00	959 47	1,198 32
Des Moines.....	2d half.	226.88	818 25	898.95	110 00	298 94	408 94	358.81	60 00	24 00	84 00	1,484.64	1,715 19	1,964 28
Total		316.28	941 75	2,086.55	230 00	890 91	1,120 91	718.81	130 00	52 00	182 00	3,121.64	2,674 66	3,162 60
Sioux City.....	1st half.	.56	1 40	2,350.10	245 00	1,446 00	1,691 00	3,304.84	380 00	152 00	532 00	5,655.50	2,782 40	2,739 02
Sioux City.....	2d half.	86.42	704 33	3,967.26	275 00	2,368 00	2,643 00	3,513.82	380 00	152 00	532 00	7,567.50	4,370 33	3,350 98
Total		86.98	705 73	6,317.36	520 00	3,814 00	4,334 00	6,818.66	760 00	304 00	1,064 00	13,223.00	7,152 73	6,090 00
Grand total.....		403.26	1,647 48	8,403.91	750 00	4,704 91	5,454 91	7,537.47	890 00	356 00	1,246 00	16,344.64	9,827 39	9,252 60
ILLINOIS.														
.....	1st half.	123.27	154 07	2,320.28	155 00	265 00	420 00	.....	.....	.....	.....	2,443.55	578 07	.....
.....	2d half.	100.96	269 64	1,562.14	105 00	152 75	257 75	.....	.....	.....	.....	1,663.10	527 39	.....
Total		224.23	423 71	3,882.42	260 00	417 75	677 75	.....	.....	.....	.....	4,106.65	1,105 46	.....
INDIANA.														
.....	1st half.	.....	.....	.....	.....	8 00	8 00	.....	.....	.....	.....	.....	8 00	.....
.....	2d half.	.....	12 50	80.00	10 00	2 00	12 00	.....	.....	.....	.....	80.00	26 50	.....
Total .....		.....	12 50	80.00	10 00	10 00	20 00	.....	.....	.....	.....	80.00	34 50	.....
KANSAS.														
Concordia.....	1st half.	3,331.41	4,804 33	39,856.49	4,680 00	4,792 20	9,472 20	19,097.72	1,480 00	592 00	2,072 00	62,285.62	17,646 19	3,180 75
Concordia.....	2d half.	3,699.92	6,041 00	77,805.93	5,010 00	6,799 62	11,809 62	23,338.83	1,830 00	732 00	2,562 00	104,844.68	22,197 02	3,022 40
Total		7,031.33	10,845 33	117,662.42	9,690 00	11,591 82	21,281 82	42,436.55	3,310 00	1,324 00	4,634 00	167,130.30	39,843 21	6,203 15
Hays City	1st half.	1,373.36	2,830 60	34,514.66	2,515 00	1,197 24	3,712 24	34,052.35	2,150 00	860 00	3,010 00	69,940.37	10,403 84	3,014 61
Hays City	2d half.	1,749.75	3,747 45	111,463.33	7,010 00	3,636 12	10,646 12	93,532.17	5,990 00	2,396 00	8,386 00	206,745.25	26,942 58	2,281 95
Total		3,123.11	6,578 05	145,977.99	9,525 00	4,833 36	14,358 36	127,584.52	8,140 00	3,256 00	11,396 00	276,685.62	37,346 42	5,296 56
Independence.....	1st half.	8.39	10 50	15,982.91	1,050 00	579 90	1,629 90	.....	.....	.....	.....	15,991.30	2,607 40	3,176 65
Independence.....	2d half.	305.46	531 83	2,080.00	160 00	165 65	325 65	.....	.....	.....	.....	2,385.46	1,818 38	3,000 00
Total		313.85	542 33	18,062.91	1,210 00	745 55	1,955 55	.....	.....	.....	.....	18,376.76	4,425 78	6,176 65

No. 2.—Statement of public lands sold for cash, and entered under the homestead and timber-culture acts, &c.—Continued.

States, Territories, and land offices.	Fiscal year 1878.	Quantity sold for cash and revolutionary bounty-land scrip, and amount receiv- ed therefor, includ- ing cash received on commuted home- steads.		Quantity of land entered under the home- stead act, with the amount of govern- ment fees and registers' and receivers' commissions received thereon.				Quantity of land entered under the tim- ber-culture acts of March 3, 1873, and March 13, 1874 (Revised Statutes, sec- tion 2464), with the amount of govern- ment fees and registers' and receivers' commissions received thereon.				Aggregate of acres dis- posed of for cash, and timber-culture acts.	Aggregate amount of money received from cash sales, fees and commissions on homestead and timber-cul- ture entries, and from all other sources.	Incidental expenses.	
		Acres.	Amount.	Acres.	Government fees.	Registers' and receivers' commissions.	Total fees and commissions.	Acres.	Government fees.	Registers' and receivers' commissions.	Total fees and commissions.				
KANSAS—Continued.															
Kirwin	1st half ..	2,447.70	\$3,534.62	111,686.45	\$6,960.00	\$3,703.01	\$10,663.01	41,808.48	\$2,920.00	\$1,168.00	\$4,088.00	155,942.63	\$20,417.68	\$3,253.05	
Kirwin	2d half..	9,106.10	12,180.17	271,959.68	17,105.00	9,017.14	26,122.14	119,488.27	7,960.00	3,184.00	11,144.00	400,554.05	54,715.81	3,241.95	
Total .....	.....	11,553.80	15,714.79	383,646.13	24,065.00	12,720.15	36,785.15	161,296.75	10,880.00	4,352.00	15,232.00	556,496.68	75,133.49	6,495.00	
Larned	1st half ..	2,999.61	6,041.98	79,111.48	5,645.00	3,617.14	9,262.14	64,371.57	4,140.00	1,656.00	5,796.00	146,482.66	23,651.12	3,315.00	
Larned	2d half..	7,002.84	16,888.57	167,265.98	10,615.00	6,355.64	16,970.64	104,751.33	6,880.00	2,712.00	9,592.00	279,020.15	46,878.21	3,200.00	
Total .....	.....	10,002.45	22,930.55	246,377.46	16,260.00	9,972.78	26,232.78	169,122.90	11,020.00	4,368.00	15,388.00	425,502.81	70,529.33	6,515.00	
Salina	1st half ..	4,931.34	12,608.26	38,886.28	3,330.00	4,021.15	7,351.15	26,971.55	1,920.00	768.00	2,688.00	70,789.17	24,507.77	3,113.70	
Salina	2d half..	4,630.84	10,452.71	73,129.45	4,690.00	5,834.04	10,524.04	47,223.92	2,600.00	1,440.00	4,040.00	124,984.21	28,775.75	3,020.70	
Total .....	.....	9,562.18	23,060.97	112,015.73	8,020.00	9,855.19	17,875.19	74,195.47	4,520.00	2,208.00	6,728.00	195,773.38	53,283.52	6,134.40	
Topeka	1st half ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Topeka	2d half..	2,663.53	4,013.66	9,147.75	820.00	1,761.49	2,581.49	1,040.00	120.00	48.00	168.00	12,851.28	7,110.90	3,086.67	
Total .....	.....	2,663.53	4,013.66	9,147.75	820.00	1,761.49	2,581.49	1,040.00	120.00	48.00	168.00	12,851.28	7,110.90	3,086.67	
Wichita	1st half ..	2,332.97	6,386.35	17,015.08	1,335.00	2,386.55	3,721.55	8,454.45	600.00	240.00	840.00	27,802.50	13,133.90	3,000.00	

Wichita.....	2d half..	2, 775.88	6, 065.09	19, 652.69	1, 265.00	2, 369.98	3, 634.98	8, 523.72	700 00	280 00	980 00	30, 952.29	13, 627.07	3, 010.50
Total.....		5, 108.85	12, 451.44	36, 667.77	2, 600.00	4, 756.53	7, 356.53	16, 978.17	1, 300.00	520.00	1, 820.00	58, 754.79	26, 700.97	6, 010.50
Grand total.....		49, 359.16	96, 137.12	1, 069, 558.16	72, 190.00	56, 236.87	128, 426.87	592, 654.36	39, 290.00	16, 076.00	55, 366.00	1, 711, 571.62	314, 433.62	45, 917.93
LOUISIANA.														
New Orleans.....	1st half..	112.49	247.09	16, 711.40	1, 090.00	758.83	1, 848.83					16, 833.89	2, 099.92	1, 267.74
New Orleans.....	2d half..	95.68	119.63	10, 251.22	690.00	687.84	1, 377.84					10, 346.90	1, 497.47	2, 233.52
Total.....		218.17	366.72	26, 962.62	1, 780.00	1, 446.67	3, 226.67					27, 180.79	3, 597.39	3, 501.26
Natchitoches.....	1st half..	44.95	609.75	7, 526.57	750.00	504.46	1, 254.46					7, 571.52	1, 864.21	941.43
Natchitoches.....	2d half..	26.21	258.07	4, 247.85	385.00	324.67	709.67					4, 274.06	971.74	881.60
Total.....		71.16	867.82	11, 774.42	1, 135.00	829.13	1, 964.13					11, 845.58	2, 835.95	1, 823.03
Monroe.....	1st half..	12.62	15.77	7, 473.98	554.00	277.17	831.17					7, 486.60	846.94	948.02
Monroe.....	2d half..	10.66	21.18	2, 722.41	234.00	133.98	367.98					2, 733.07	389.16	463.84
Total.....		23.28	36.95	10, 196.39	788.00	411.15	1, 199.15					10, 219.67	1, 236.10	1, 411.86
Grand total.....		312.61	1, 271.49	48, 933.43	3, 703.00	2, 686.95	6, 389.95					49, 246.04	7, 669.44	6, 736.15
MICHIGAN.														
Detroit.....	1st half..	94.79	1, 193.81	5, 524.80	385.00	277.80	662.80					5, 619.59	1, 871.61	1, 169.81
Detroit.....	2d half..	124.61	2, 263.63	6, 096.12	455.00	281.06	736.06					6, 220.73	3, 048.69	1, 225.25
Total.....		219.40	3, 457.44	11, 620.92	840.00	558.86	1, 398.86					11, 840.32	4, 920.30	2, 395.06
East Saginaw.....	1st half..	480.43	1, 124.75	5, 083.67	410.00	301.07	711.07					5, 564.10	1, 837.82	825.56
East Saginaw.....	2d half..	1, 197.41	1, 846.75	9, 410.18	645.00	360.15	1, 005.15					10, 607.59	2, 861.90	1, 019.57
Total.....		1, 677.84	2, 971.50	14, 493.85	1, 055.00	661.22	1, 716.22					16, 171.69	4, 699.72	1, 845.13
Ionia, now Reed City.	1st half..	3.36	654.20	3, 934.52	345.00	870.35	1, 215.35					3, 937.88	1, 899.55	1, 413.42
Ionia, now Reed City.	2d half..	55.16	718.95	5, 005.73	375.00	610.18	985.18					5, 060.89	1, 746.13	1, 166.54
Total.....		58.52	1, 373.15	8, 940.25	720.00	1, 480.53	2, 200.53					8, 998.77	3, 645.68	2, 579.96
Marquette.....	1st half..	1, 095.42	1, 969.30	9, 658.67	745.00	355.51	1, 100.51					10, 754.09	3, 135.56	960.60
Marquette.....	2d half..	895.91	1, 471.51	29, 975.40	2, 035.00	995.40	3, 030.40					30, 871.31	4, 533.61	1, 556.46
Total.....		1, 991.33	3, 440.81	39, 634.07	2, 780.00	1, 350.91	4, 130.91					41, 625.40	7, 669.17	2, 517.06
Traverse City.....	1st half..	2, 176.94	4, 993.24	23, 048.59	1, 900.00	2, 394.14	4, 294.14					25, 225.53	9, 610.38	3, 083.73
Traverse City.....	2d half..	607.10	2, 816.40	23, 157.35	1, 845.00	1, 954.15	3, 799.15					23, 764.45	6, 863.20	3, 000.00
Total.....		2, 784.04	7, 809.64	46, 205.94	3, 745.00	4, 348.29	8, 093.29					48, 989.98	16, 473.58	6, 083.73
Grand total.....		6, 731.13	19, 052.54	120, 895.03	9, 140.00	8, 399.81	17, 539.81					127, 626.16	37, 408.45	15, 420.94

No. 2.—Statement of public lands sold for cash, and entered under the homestead and timber-culture acts, &c.—Continued.

States, Territories, and land offices.	Fiscal year 1878.	Quantity sold for cash and revolutionary bounty-land scrip, and amount received therefor, including commuted homesteads.		Quantity of land entered under the homestead act, with the amount of government fees and registers' and receivers' commissions received thereon.				Quantity of land entered under the timber-culture acts of March 3, 1873, and March 13, 1874 (Revised Statutes, section 2464), with the amount of government fees and registers' and receivers' commissions received thereon.				Aggregate of acres disposed of for cash, and timber-culture acts.	Aggregate amount of money received from cash sales, fees and commissions on homestead and timber culture entries, and from all other sources.	Incidental expenses.
		Acres.	Amount.	Acres.	Government fees.	Registers' and receivers' commissions.	Total fees and commissions.	Acres.	Government fees.	Registers' and receivers' commissions.	Total fees and commissions.	Acres.	Amount.	Amount.
MINNESOTA.	1st half.	1,896.19	\$3,630.86	49,259.07	\$3,950.00	\$2,601.47	\$6,551.47	23,756.40	\$1,720.00	\$688.00	\$2,408.00	74,911.66	\$13,520.33	\$2,887.47
	2d half.	3,416.60	8,512.53	117,931.62	7,530.00	4,505.95	12,035.95	55,990.83	4,020.00	1,608.00	5,628.00	177,339.05	28,055.23	2,459.00
	Total	5,312.79	12,143.39	167,190.69	11,480.00	7,107.42	18,587.42	79,747.23	5,740.00	2,296.00	8,036.00	252,250.71	41,575.56	5,337.47
	1st half.	130.42	175.33	476.02	45.00	108.00	153.00					606.44	347.58	722.82
	2d half.	2,093.43	4,965.47	1,493.25	95.00	171.26	266.26					3,586.68	5,293.48	845.10
	Total	2,223.85	5,140.80	1,969.27	140.00	279.26	419.26					4,193.12	5,641.06	1,567.92
	1st half.	829.82	2,172.70	16,310.69	1,380.00	929.28	2,309.28	16,736.41	1,070.00	428.00	1,498.00	33,876.92	6,607.53	2,604.02
	2d half.	5,114.33	11,213.84	31,963.95	3,755.00	2,707.48	6,462.48	30,254.42	3,725.00	1,488.00	5,213.00	67,332.70	24,600.07	3,747.03
	Total	5,944.15	13,386.54	48,274.64	5,135.00	3,636.76	8,771.76	46,990.83	4,795.00	1,916.00	6,711.00	101,209.62	31,207.60	6,351.05
	1st half.	524.34	1,388.05	19,928.96	1,815.00	1,638.07	3,453.07	14,605.56	960.00	384.00	1,344.00	35,058.86	6,732.12	2,469.30
	2d half.	1,217.52	3,312.84	74,357.65	4,785.00	3,244.25	8,029.25	61,570.47	4,160.00	1,664.00	5,824.00	137,145.64	18,476.51	3,367.13
New Ulm.	Total	1,741.86	4,700.89	94,286.61	6,600.00	4,882.32	11,482.32	76,176.03	5,120.00	2,048.00	7,168.00	172,204.50	25,208.63	5,836.43
	1st half	1,094.44	3,185.12	32,077.78	2,545.00	2,083.50	4,628.50	31,416.89	2,220.00	888.00	3,108.00	64,589.11	11,527.32	3,145.51

New Ulm.....	2d half..	4, 014. 49	8, 228 14	62, 327. 17	3, 990 00	3, 099 77	7, 089 77	36, 106. 94	2, 620 00	1, 052 00	3, 672 00	102, 448. 63	29, 253 06	3, 000 00
Total		5, 108 93	11, 413 26	94, 404. 95	6, 535 00	5, 183 27	11, 718 27	67, 523. 83	4, 840 00	1, 940 00	6, 780 00	167, 037. 71	31, 780 38	6, 145 51
Redwood Falls.....	1st half	1, 819. 23	4, 479 49	19, 933. 50	1, 905 00	1, 472 95	3, 377 95	17, 186. 16	1, 530 00	612 00	2, 142 00	38, 938. 89	10, 601 44	2, 750 84
Redwood Falls.....	2d half..	2, 837. 92	7, 452 58	40, 512. 82	2, 620 00	2, 081 86	4, 701 86	31, 631. 07	2, 440 00	976 00	3, 416 00	74, 981. 81	16, 660 24	3, 464 48
Total		4, 657. 15	11, 932 07	60, 446. 32	4, 525 00	3, 554 81	8, 079 81	48, 817. 23	3, 970 00	1, 588 00	5, 558 00	113, 920. 70	27, 261 68	6, 215 32
Saint Cloud.....	1st half	1, 571. 67	3, 614 75	12, 128. 65	1, 150 00	1, 100 40	2, 250 40					13, 700. 32	9, 928 54	3, 114 09
Saint Cloud.....	2d half..	7, 059. 18	12, 195 99	17, 564. 95	1, 215 00	1, 309 97	2, 524 97					24, 624. 13	15, 217 96	2, 786 06
Total		8, 630. 85	15, 810 74	29, 693. 60	2, 365 00	2, 410 37	4, 775 37					38, 324. 45	25, 146 50	5, 900 15
Taylor's Falls.....	1st half	260. 66	401 65	2, 508. 69	255 00	421 10	676 10					2, 769. 35	1, 192 75	1, 030 58
Taylor's Falls.....	2d half..	2, 038. 41	3, 145 46	3, 389. 88	245 00	321 14	566 14					5, 428. 29	3, 839 60	1, 118 34
Total		2, 299. 07	3, 547 11	5, 898. 57	500 00	742 24	1, 242 24					8, 197. 64	5, 032 35	2, 148 92
Worthington	1st half	1, 731. 38	5, 239 36	25, 784. 60	1, 500 00	3, 590 66	5, 090 66	12, 934. 34	1, 010 00	404 00	1, 414 00	40, 450. 32	12, 152 82	3, 008 65
Worthington	2d half..	4, 535. 92	12, 052 48	39, 493. 88	3, 595 00	3, 214 78	6, 809 78	16, 319. 26	1, 410 00	564 00	1, 974 00	60, 349. 06	21, 488 06	3, 000 00
Total		6, 267. 30	17, 281 84	65, 278. 48	5, 095 00	6, 805 44	11, 900 44	29, 253. 60	2, 420 00	968 00	3, 388 00	100, 799. 38	33, 640 88	6, 018 65
Grand total		42, 185. 95	95, 356 64	567, 443. 13	42, 375 00	34, 601 89	76, 976 89	348, 508. 75	26, 885 00	10, 756 00	37, 641 00	958, 137. 83	226, 494 64	45, 511 42
MISSOURI.														
Boonville	1st half	264. 56	698 79	4, 913. 12	405 00	786 91	1, 191 91					5, 195. 68	2, 202 52	3, 392 54
Boonville	2d half..	490. 58	708 74	8, 430. 46	645 00	750 10	1, 395 10					8, 921. 04	2, 406 92	1, 692 34
Total		755. 14	1, 407 53	13, 361. 58	1, 050 00	1, 537 01	2, 587 01					14, 116. 72	4, 609 44	3, 084 88
Ironton	1st half	336. 44	459 66	8, 837. 96	675 00	622 98	1, 297 98					9, 174. 40	1, 882 04	1, 287 41
Ironton	2d half..	708. 41	885 99	12, 269. 06	925 00	655 17	1, 580 17					12, 977. 47	2, 581 14	1, 292 62
Total		1, 044. 85	1, 345 65	21, 107. 02	1, 600 00	1, 278 15	2, 878 15					22, 151. 87	4, 463 18	2, 580 03
Springfield.....	1st half	447. 71	706 79	11, 095. 08	870 00	1, 181 00	2, 051 00					11, 542. 79	2, 855 79	1, 793 10
Springfield.....	2d half..	741. 17	927 34	17, 331. 94	1, 280 00	1, 059 00	2, 339 00					18, 073. 11	3, 481 34	1, 787 50
Total		1, 188. 88	1, 634 13	28, 427. 02	2, 150 00	2, 240 00	4, 390 00					29, 615. 90	6, 337 13	3, 580 60
Grand total		2, 988. 87	4, 387 31	62, 895. 62	4, 800 00	5, 055 16	9, 855 16					65, 884. 49	15, 409 75	9, 245 51
MISSISSIPPI.														
Jackson	1st half	225. 35	281 68	33, 000. 46	2, 310 00	1, 495 00	3, 805 00					33, 225. 81	4, 197 68	2, 777 16
Jackson	2d half..	190. 08	245 18	19, 977. 64	1, 345 00	1, 034 00	2, 379 00					20, 167. 72	2, 716 93	2, 037 62
Total		415. 43	526 86	52, 978. 10	3, 655 00	2, 529 00	6, 184 00					53, 393. 53	6, 914 61	4, 814 78

No. 2.—Statement of public lands sold for cash, and entered under the homestead and timber-culture acts, &c.—Continued.

States, Territories, and land offices.	Fiscal year 1878.	Quantity sold for cash and bounty-land scrip, and amount received therefor, including cash re- ceived on commuted homesteads.		Quantity of land entered under the home- stead act, with the amount of govern- ment fees and registers' and receivers' commissions received thereon.				Quantity of land entered under the tim- ber-culture acts of March 3, 1873, and March 13, 1874 (Revised Statutes, sec- tion 2464), with the amount of govern- ment fees and registers' and receivers' commissions received thereon,				Aggregate of acres disposed of for cash, and under the homestead and timber-cul- ture acts.	Aggregate amount of money received from cash sales, fees and commissions on homestead and timber-cul- ture tracts, and from all other sources.	Incidental expenses.
		Acres.	Amount.	Acres.	Government fees.	Registers' and receivers' commissions.	Total fees and commissions.	Acres.	Government fees.	Registers' and receivers' commissions.	Total fees and commissions.			
MONTANA.	1st half.	3,749.00	\$1,520.00	795.82	\$70.00	\$168.00	\$238.00	160.00	\$10.00	\$4.00	\$14.00	4,704.82	\$2,036.81	\$1,072.21
	2d half.	2,893.70	1,900.00	1,758.29	140.00	216.00	356.00	720.00	50.00	20.00	70.00	5,371.99	2,540.53	1,176.28
	Total	6,642.70	3,420.00	2,554.11	210.00	384.00	594.00	880.00	60.00	24.00	84.00	10,076.81	4,577.34	2,248.49
	1st half.	13,097.55	5,463.02	2,477.41	170.00	381.00	551.00	40.00	10.00	4.00	14.00	15,614.96	6,733.02	1,876.24
	2d half.	17,250.42	9,284.14	4,605.12	380.00	573.00	953.00	40.00	10.00	4.00	14.00	21,895.54	11,130.74	2,395.68
Total		30,347.97	14,747.16	7,082.53	550.00	954.00	1,504.00	80.00	20.00	8.00	28.00	37,510.50	17,863.76	4,271.92
Grand total.		36,990.67	18,167.16	9,636.64	760.00	1,338.00	2,098.00	960.00	80.00	32.00	112.00	47,587.31	22,441.10	6,520.41
NEBRASKA.	1st half.	240.00	800.00	4,034.76	460.00	1,428.29	1,888.29	1,838.00	180.00	72.00	252.00	6,112.76	3,241.79	2,486.41
	2d half.	199.97	964.21	6,821.12	440.00	1,459.28	1,899.28	2,710.75	240.00	95.00	336.00	9,731.84	3,671.04	3,447.94
	Total	439.97	1,764.21	10,855.88	900.00	2,887.57	3,787.57	4,548.75	420.00	168.00	588.00	15,844.60	6,912.83	5,934.35
	1st half.	359.40	1,257.07	35,912.49	2,465.00	1,877.98	4,342.98	12,371.85	860.00	344.00	1,204.00	48,643.74	7,379.05	3,021.89
	2d half.	3,176.67	5,297.43	122,951.00	7,800.00	4,923.86	12,723.86	53,619.73	3,540.00	1,416.00	4,956.00	179,747.40	24,508.29	3,099.65
Total		3,536.07	6,549.50	158,863.49	10,265.00	6,801.84	17,066.84	65,991.58	4,400.00	1,760.00	6,160.00	228,391.14	31,887.34	6,121.54

Grand Island.....	1st half.	244.45	879 07	26,004.72	2,005 00	2,439 28	4,444 28	9,363.84	740 00	296 00	1,036 00	35,613.01	6,892 35	3,084 40
Grand Island.....	2d half.	2,984.82	6,369 03	98,575.94	6,380 00	5,256 88	11,636 88	47,139.81	3,390 00	1,356 00	4,746 00	148,700.57	24,074 91	3,046 20
Total		3,229.27	7,248 10	124,580.66	8,385 00	7,696 16	16,081 16	56,503.65	4,130 00	1,652 00	5,782 00	184,313.58	30,967 26	6,130 60
Lincoln	1st half.	408.07	1,420 18	7,606.73	860 00	4,580 48	5,440 48	4,851.26	500 00	200 00	700 00	12,867.06	7,743 16	3,068 05
Lincoln	2d half.	1,381.88	3,453 70	13,110.94	1,235 00	4,386 94	5,621 94	7,324.27	700 00	280 00	980 00	21,817.09	10,234 09	3,108 95
Total		1,789.95	4,873 88	20,718.67	2,095 00	8,967 42	11,062 42	12,175.53	1,200 00	480 00	1,680 00	34,684.15	17,977 25	6,177 00
Niobrara.....	1st half.	274.32	542 94	11,631.60	735 00	707 00	1,442 00	4,394.24	330 00	132 00	462 00	16,300.16	2,701 94	1,791 43
Niobrara.....	2d half.	1,203.88	1,505 06	29,539.82	1,860 00	1,221 00	3,081 00	23,963.31	1,680 00	672 00	2,352 00	54,707.01	7,657 06	3,220 92
Total		1,478.20	2,048 00	41,171.42	2,595 00	1,928 00	4,523 00	28,357.55	2,010 00	804 00	2,814 00	71,007.17	10,359 00	5,012 35
Norfolk.....	1st half.	1.50	1 88	7,215.95	465 00	699 72	1,164 72	2,957.35	220 00	88 00	308 00	10,174.80	1,727 69	1,610 26
Norfolk.....	2d half.	566.80	713 43	31,127.11	1,954 00	1,617 94	3,571 94	19,735.42	1,320 00	528 00	1,848 00	51,429.33	6,441 37	2,968 18
Total		568.30	715 31	38,343.06	2,419 00	2,317 66	4,736 66	22,692.77	1,540 00	616 00	2,156 00	61,604.13	8,168 97	4,578 44
North Platte.....	1st half.	300.90	387 13	3,945.47	270 00	232 63	502 63	960.00	60 00	24 00	84 00	5,206.37	1,164 22	1,120 25
North Platte.....	2d half.	186.14	638 10	9,113.88	580 00	477 15	1,057 15	4,422.83	290 00	116 00	406 00	13,722.85	2,418 25	1,427 13
Total		487.04	1,025 23	13,059.35	850 00	709 78	1,559 78	5,382.83	350 00	140 00	490 00	18,929.22	3,582 47	2,547 38
Grand total.....		11,528.80	24,224 23	407,592.53	27,509 00	31,308 43	58,817 43	195,652.66	14,050 00	5,620 00	19,670 00	614,773.99	109,855 12	36,501 66
NEW MEXICO.														
La Mesilla.....	1st half.	5,709.45	1,553 20	1,357.34	90 00	72 00	162 00	.....	.....	.....	.....	7,066.79	1,896 70	507 28
La Mesilla.....	2d half.	1,073.10	820 55	960 50	55 00	55 50	110 50	.....	.....	.....	.....	2,033.60	1,074 05	715 40
Total		6,782.55	2,373 75	2,317.84	145 00	127 50	272 50	.....	.....	.....	.....	9,100.39	2,970 75	1,222 68
Santa Fé.....	1st half.	.....	.....	80.00	10 00	6 00	16 00	.....	.....	.....	.....	80.00	16 00	503 00
Santa Fé.....	2d half.	481.42	850 00	2,162.01	135 00	82 50	217 50	320.00	20 00	8 00	28 00	2,963.43	1,238 50	919 50
Total		481.42	850 00	2,242.01	145 00	88 50	233 50	320.00	20 00	8 00	28 00	3,043.43	1,254 50	1,422 50
Grand total.....		7,263.97	3,223 75	4,559.85	290 00	216 00	516 00	320.00	20 00	8 00	28 00	12,143.82	4,255 25	2,645 18
NEVADA.														
Carson City.....	1st half.	48,651.56	15,663 35	1,073.41	90 00	102 00	192 00	560.00	40 00	16 00	56 00	50,284.97	16,306 85	840 86
Carson City.....	2d half.	12,770.30	6,439 76	2,336.98	170 00	159 00	329 00	40.00	10 00	4 00	14 00	15,147.28	7,337 76	1,400 76
Total		61,421.86	22,103 11	3,410.39	260 00	261 00	521 00	600.00	50 00	20 00	70 00	65,432.25	23,644 61	2,241 62
Eureka.....	1st half.	15,252.26	5,685 50	840.00	55 00	55 50	110 50	.....	.....	.....	.....	16,092.26	6,170 50	1,468 13
Eureka.....	2d half.	11,581.25	5,357 67	1,160.00	75 00	72 00	147 00	.....	.....	.....	.....	12,741.25	6,189 67	1,536 49
Total		26,833.51	11,043 17	2,000.00	130 00	127 50	257 50	.....	.....	.....	.....	28,833.51	12,360 17	3,004 62

No. 2.—Statement of public lands sold for cash, and entered under the homestead and timber-culture acts, &c.—Continued.

States, Territories, and land offices.	Fiscal year 1878.	Quantity sold for cash and revolutionary bounty-land scrip, and amount received therefor, including cash received on commuted homesteads.		Quantity of land entered under the homestead act, with the amount of government fees and registers' and receivers' commissions received thereon.				Quantity of land entered under the timber-culture acts of March 3, 1873, and March 13, 1874 (Revised Statutes, section 2464), with the amount of government fees and registers' and receivers' commissions thereon.				Aggregate of acres disposed of for cash, and timber-culture acts.	Aggregate amount of money received from cash sales, homestead and timber-culture entries, and from all other sources.	Incidental expenses.
		Acres.	Amount.	Acres.	Government fees.	Registers' and receivers' commissions.	Total fees and commissions.	Acres.	Government fees.	Registers' and receivers' commissions.	Total fees and commissions.			
NEVADA—Cont'd.	1st half.	921.00	\$772 50	640.00	\$110 00	\$102 00	\$212 00					1,561.00	\$1,120 50	\$619 34
	2d half.													
	Total	921.00	772 50	640.00	110 00	102 00	212 00					1,561.00	1,120 50	619 34
	1st half.	640.00	160 00									640.00	160 00	272 00
	2d half.													
Pioche	Total	640.00	160 00									640.00	160 00	272 00
Grand total		89,816.37	34,078 78	6,050.39	500 00	490 50	990 50	600.00	\$50 00	\$20 00	\$70 00	96,466.76	37,285 28	6,137 58
OHIO.	1st half.			40.00	5 00	5 00	10 00					40.00	10 00	
	2d half.	26.60	39 00	9.75		2 55	2 55					36.35	45 55	
	Total	26.60	39 00	49.75	5 00	7 55	12 55					76.35	55 55	

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Eau Claire.....	2d half.....	2, 118. 12	3, 270 91	15, 391. 47	1, 070 00	1, 059 38	2, 129 38				17, 509. 59	5, 800 09	2, 024 58
Total.....		2, 876. 43	4, 519 70	27, 945. 75	2, 214 00	2, 059 99	4, 273 99	.....	.....	.....	30, 822. 18	9, 493 37	3, 850 04
Falls St. Croix.....	1st half.....	1, 542. 20	2, 754 72	7, 306. 94	635 00	708 51	1, 343 51	.....	.....	.....	8, 849. 14	4, 309 23	1, 473 22
Falls St. Croix.....	2d half.....	615. 88	1, 018 78	5, 915. 83	445 00	615 33	1, 060 33	.....	.....	.....	6, 531. 71	2, 304 31	1, 447 36
Total.....		2, 158. 08	3, 773 50	13, 222. 77	1, 080 00	1, 323 84	2, 403 84	.....	.....	.....	15, 380. 85	6, 613 54	2, 920 58
La Crosse.....	1st half.....	2, 002. 48	3, 274 95	12, 118. 40	1, 025 00	829 06	1, 854 06	.....	.....	.....	14, 120. 88	5, 350 76	1, 705 25
La Crosse.....	2d half.....	2, 743. 70	3, 755 09	5, 769. 23	500 00	656 83	1, 156 83	.....	.....	.....	8, 512. 93	5, 124 17	1, 455 21
Total.....		4, 746. 18	7, 030 04	17, 887. 63	1, 525 00	1, 485 89	3, 010 89	.....	.....	.....	22, 633. 81	10, 474 93	3, 160 46
Menasha.....	1st half.....	1, 019. 55	1, 274 43	5, 828. 40	435 00	220 59	655 59	.....	.....	.....	6, 847. 95	2, 358 02	1, 174 04
Menasha.....	2d half.....	3, 840. 01	4, 850 02	8, 926. 70	615 00	305 19	920 19	.....	.....	.....	12, 766. 71	6, 090 96	1, 225 33
Total.....		4, 859. 56	6, 124 45	14, 755. 10	1, 050 00	525 78	1, 575 78	.....	.....	.....	19, 614. 66	8, 448 98	2, 399 37
Wausau.....	1st half.....	475. 57	765 96	16, 846. 16	1, 412 00	771 70	2, 183 70	.....	.....	.....	17, 321. 73	3, 219 56	1, 725 40
Wausau.....	2d half.....	1, 193. 64	1, 519 19	16, 360. 68	1, 190 00	763 51	1, 953 51	.....	.....	.....	17, 554. 32	3, 772 99	1, 594 16
Total.....		1, 669. 21	2, 285 15	33, 206. 84	2, 602 00	1, 535 21	4, 137 21	.....	.....	.....	34, 876. 05	6, 992 55	3, 319 56
Grand total.....		19, 817. 92	31, 903 99	109, 178. 09	8, 636 00	7, 066 71	15, 702 71	.....	.....	.....	128, 996. 01	50, 804 23	17, 290 89
WYOMING.													
Cheyenne.....	1st half.....	8, 092. 18	3, 273 25	1, 599. 00	140 00	144 00	284 00	.....	.....	.....	9, 691. 18	3, 665 25	942 31
Cheyenne.....	2d half.....	9, 528. 90	4, 111 73	1, 279. 11	90 00	96 00	186 00	.....	.....	.....	10, 808. 01	4, 384 73	768 81
Total.....		17, 621. 08	7, 384 98	2, 878. 11	230 00	240 00	470 00	.....	.....	.....	20, 499. 19	8, 049 98	1, 711 12
Evanston.....	1st half.....	320. 00	80 00	.....	.....	.....	.....	.....	.....	.....	320. 00	86 00	1, 148 28
Evanston.....	2d half.....	2, 115. 06	448 94	399. 42	30 00	36 00	66 00	.....	.....	.....	2, 514. 48	637 94	657 56
Total.....		2, 435. 06	528 94	399. 42	30 00	36 00	66 00	.....	.....	.....	2, 834. 48	723 94	1, 705 84
Grand total.....		20, 056. 14	7, 913 92	3, 277. 53	260 00	276 00	536 00	.....	.....	.....	23, 333. 67	8, 773 92	3, 416 96
Grand total.....		877, 555. 14	1, 130, 752 00	4, 418, 344. 92	308, 783 00	247, 743 32	556, 526 32	1, 870, 434. 18	129, 415 00	52, 120 00	7, 166, 334. 24	2, 010, 535 41	408, 434 12

J. A. WILLIAMSON, Commissioner.

DEPARTMENT OF THE INTERIOR, GENERAL LAND OFFICE, October 28, 1878.

No. 2.—Statement of public lands sold for cash, and entered under the homestead and timber-culture acts, &c.—Continued.

RECAPITULATION.

States and Territories.	Quantity sold for cash and revolutionary bounty-land scrip, and amount received therefor, including cash received on commuted homesteads.		Quantity of land entered under the homestead act, with the amount of government fees and registers' and receivers' commissions received thereon.		Registers' and receivers' commissions.	Total fees and commissions.
	Acre.	Amount.	Acre.	Government fees.		
Alabama.....	463.72	\$1,681 54	169,466.29	\$12,896 00	\$7,119 30	\$20,015 30
Arkansas.....	12,514.06	18,971 38	225,915.97	16,711 00	11,849 97	28,560 97
Arizona Territory.....	57,081.37	18,152 85	4,903.81	350 00	268 50	618 50
California.....	277,938.62	396,819 52	249,667.09	17,670 00	17,499 69	35,169 69
Colorado.....	38,788.35	63,497 62	84,994.30	5,685 00	5,712 75	11,397 75
Dakota Territory.....	58,587.80	104,400 04	739,556.37	46,920 00	22,925 61	69,845 61
Florida.....	555.57	10,940 44	150,573.61	10,765 00	4,825 12	15,590 12
Idaho Territory.....	25,043.31	13,688 05	37,555.10	2,400 00	1,716 00	4,116 00
Iowa.....	403.26	1,647 48	8,403.91	750 00	4,704 91	5,454 91
Illinois.....	224.23	423 71	3,882.42	260 00	417 75	677 75
Indiana.....	.....	12 50	80.00	10 00	10 00	20 00
Kansas.....	49,359.10	96,137 12	1,069,558.16	72,190 00	56,236 87	128,426 87
Louisiana.....	312.61	1,271 49	48,933.43	3,703 00	2,686 95	6,389 95
Michigan.....	6,731.13	19,052 54	120,895.03	9,140 00	8,399 81	17,539 81
Minnesota.....	42,185.95	95,356 64	567,443.13	42,375 00	34,601 89	76,976 89
Missouri.....	2,988.87	4,387 31	62,895.62	4,800 00	5,055 16	9,855 16
Mississippi.....	415.43	526 86	52,978.10	3,655 00	2,529 00	6,184 00
Montana Territory.....	36,990.67	18,167 16	9,636.64	760 00	1,338 00	2,098 00
Nebraska.....	11,528.80	24,224 23	407,592.53	27,509 00	31,308 43	58,817 43
New Mexico Territory.....	7,263.97	3,223 75	4,559.85	290 00	216 00	506 00
Nevada.....	89,816.37	34,078 78	6,050.39	500 00	490 50	990 50
Ohio.....	26.60	39 00	49.75	5 00	7 55	12 55
Oregon.....	35,411.55	45,917 51	85,739.36	6,418 00	7,203 09	13,621 09
Utah Territory.....	44,533.34	43,310 58	82,837.95	5,765 00	4,926 00	10,691 00
Washington Territory.....	38,516.40	75,005 99	111,720.49	8,360 00	8,351 76	16,711 76
Wisconsin.....	19,817.92	31,903 99	109,178.09	8,636 00	7,066 71	15,702 71
Wyoming Territory.....	20,056.14	7,913 92	3,277.53	260 00	276 00	536 00
Total.....	877,555.14	1,130,752 00	4,418,344.92	308,783 00	247,743 32	556,526 32

RECAPITULATION—Continued.

States and Territories.	Quantity of land entered under the timber-culture acts of March 3, 1873, and March 13, 1874 (Revised Statutes, section 2464), with the amount of government fees and registers' and receivers' commissions received thereon.					Aggregate of acres disposed of for cash and under the homestead and timber-culture acts.	Aggregate amt of money rec'd from cash sales, fees and commissions on homestead and timber-culture entries, and from all other sources.	Incidental expenses.
	Acres.	Government fees.	Registers' and receivers' commissions.	Total fees and commissions.	Amount.				Amount.
Alabama.....	.....	.....	.....	.....	169,930.01	\$22,380 54	\$11,997 93	
Arkansas.....	.....	.....	.....	.....	238,430.03	48,807 92	19,497 65	
Arizona Territory.....	1,600.00	\$110 00	\$44 00	\$154 00	63,585.18	19,806 85	4,908 41	
California.....	8,189.42	610 00	244 00	854 00	535,795.13	456,773 92	47,135 05	
Colorado.....	15,474.73	1,240 00	488 00	1,728 00	139,257.38	89,673 01	27,202 88	
Dakota Territory.....	579,804.05	37,610 00	15,044 00	52,654 00	1,377,948.22	238,531 10	27,390 98	
Florida.....	.....	.....	.....	.....	151,129.18	27,116 56	7,273 07	
Idaho Territory.....	22,169.53	1,580 00	632 00	2,212 00	84,767.94	21,876 16	5,433 28	
Iowa.....	7,537.47	890 00	356 00	1,246 00	16,344.64	9,827 39	9,252 60	
Illinois.....	.....	.....	.....	.....	4,106.65	1,105 46	.....	
Indiana.....	.....	.....	.....	.....	80.00	34 50	.....	
Kansas.....	592,654.36	39,290 00	16,076 00	55,366 00	1,711,571.62	314,433 62	45,917 93	
Louisiana.....	.....	.....	.....	.....	49,246.04	7,669 44	6,736 15	
Michigan.....	.....	.....	.....	.....	127,626.16	37,408 45	15,420 94	
Minnesota.....	348,508.75	26,885 00	10,756 00	37,641 00	958,137.83	226,494 64	45,511 42	
Missouri.....	.....	.....	.....	.....	65,884.49	15,409 75	9,245 51	
Mississippi.....	.....	.....	.....	.....	53,393.53	6,914 61	4,814 78	
Montana Territory.....	960.00	80 00	32 00	112 00	47,587.31	22,441 10	6,520 41	
Nebraska.....	195,652.66	14,050 00	5,620 00	19,670 00	614,773.99	109,855 12	36,501 66	
New Mexico Territory.....	320.00	20 00	8 00	28 00	12,143.82	4,225 25	2,645 18	
Nevada.....	600.00	50 00	20 00	70 00	96,466.76	37,285 28	6,137 58	
Ohio.....	.....	.....	.....	.....	76.35	55 55	.....	
Oregon.....	18,446.21	1,300 00	520 00	1,820 00	139,597.12	67,881 70	21,434 09	
Utah Territory.....	1,280.00	90 00	36 00	126 00	128,651.29	58,465 58	8,567 75	
Washington Territory.....	77,237.00	5,610 00	2,244 00	7,854 00	227,473.89	106,483 76	18,181 02	
Wisconsin.....	.....	.....	.....	.....	128,996.01	50,804 23	17,290 89	
Wyoming Territory.....	.....	.....	.....	.....	23,333.67	8,773 92	3,416 96	
Total.....	1,870,434.18	129,415 00	52,120 00	181,535 00	7,166,334.24	2,010,535 41	408,434 12	

J. A. WILLIAMSON, Commissioner.

DEPARTMENT OF THE INTERIOR, GENERAL LAND OFFICE, October 28, 1878.

SWAMP LANDS.

No. 3.—Statement exhibiting the quantity of land selected for the several States under acts of Congress approved March 2, 1849, September 28, 1850 (*Revised Statutes of the United States*, section 2479), and March 12, 1850 (*Revised Statutes of the United States*, section 2490), up to and ending September 30, 1878.

States.	Fourth quarter of 1877.	First quarter of 1878.	Second quarter of 1878.	Third quarter of 1878.	Year ending June 30, 1878.	Total since date of grant.
	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>
Alabama						479, 514. 44
Arkansas						8, 652, 432. 93
California		400. 00	40, 080. 32	14, 433. 31	42, 318. 85	1, 736, 163. 36
Florida	652, 320. 86				652, 320. 86	15, 656, 859. 23
Illinois						3, 267, 470. 65
Indiana						1, 354, 732. 50
Iowa						3, 449, 720. 18
Louisiana (act of 1849)						10, 805, 231. 02
Louisiana (act of 1850)						543, 339. 13
Michigan						7, 273, 724. 72
Minnesota		10, 454. 22	91, 732. 17	2, 686. 68	172, 456. 34	3, 239, 462. 65
Mississippi						3, 070, 645. 29
Missouri		4, 911. 69			4, 911. 69	4, 705, 643. 97
Ohio			20. 00		20. 00	54, 458. 14
Oregon	32, 978. 62		691. 62		33, 670. 24	43, 687. 46
Wisconsin						4, 200, 669. 58
Total	685, 299. 48	15, 765. 91	132, 524. 11	17, 119. 99	905, 697. 98	68, 533, 755. 25

No. 4.—Statement exhibiting the quantity of land approved to the several States under acts of Congress approved March 2, 1849, September 28, 1850 (*Revised Statutes of the United States*, section 2479), and March 12, 1860 (*Revised Statutes of the United States*, section 2490), up to and ending September 30, 1878.

States.	Fourth quarter of 1877.	First quarter of 1878.	Second quarter of 1878.	Third quarter of 1878.	Year ending June 30, 1878.	Total since date of grant.
	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>
Alabama						400, 434. 78
Arkansas	40. 00				40. 00	7, 625, 877. 68
California		400. 00	40, 080. 32	14, 433. 31	42, 318. 85	1, 592, 051. 68
Florida						11, 797, 436. 98
Illinois	160. 75	344. 02			504. 77	1, 492, 979. 43
Indiana			36. 29		36. 29	1, 263, 952. 97
Iowa	80. 00	80. 00	1, 809. 83	40. 00	5, 173. 69	924, 232. 53
Louisiana (act of 1849)		247. 96			247. 96	8, 291, 225. 31
Louisiana (act of 1850)						239, 731. 58
Michigan	640. 00				680. 00	5, 720, 996. 63
Minnesota	9, 270. 15		102, 777. 11		112, 047. 26	1, 473, 172. 39
Mississippi						3, 068, 642. 31
Missouri	16, 523. 14	25. 35	40. 00		16, 588. 49	4, 441, 840. 06
Ohio				20. 00		25, 660. 71
Oregon						4, 449. 54
Wisconsin						3, 139, 719. 24
Total	26, 714. 04	1, 097. 33	144, 743. 55	14, 493. 31	177, 637. 31	51, 502, 403. 82

No. 5.—Statement exhibiting the quantity of land patented to the several States under the acts of Congress approved September 23, 1850 (*Revised Statutes of the United States*, section 2479), and March 12, 1850 (*Revised Statutes of the United States*, section 2490), and also the quantity certified to the State of Louisiana under act approved March 2, 1849.

States.	Fourth quarter of 1877.	First quarter of 1878.	Second quarter of 1878.	Third quarter of 1878.	Year ending June 30, 1878.	Total since date of grant.
	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>
Alabama.....			2, 595. 48		2, 595. 48	395, 315. 09
Arkansas.....		54, 000. 37			54, 000. 37	7, 121, 953. 48
California.....	1, 638. 53	7, 070. 51			9, 349. 04	1, 413, 233. 71
Florida.....						10, 735, 403. 21
Illinois.....	120. 00				120. 00	*1, 453, 891. 67
Indiana.....	40. 00				40. 00	†1, 256, 671. 96
Iowa.....	4, 163. 86		1, 754. 54		6, 078. 40	‡1, 173, 955. 74
Louisiana (act of 1849).....		247. 96			247. 96	§8, 291, 225. 31
Louisiana (act of 1850).....						¶217, 274. 84
Michigan.....	120. 00				120. 00	§5, 657, 817. 19
Minnesota.....	102, 166. 47			1, 037. 75	102, 166. 47	||1, 318, 524. 15
Mississippi.....						2, 681, 383. 16
Missouri.....	5, 251. 26	16, 443. 14			21, 694. 40	|||3, 301, 797. 41
Ohio.....						25, 640. 71
Oregon.....						4, 449. 54
Wisconsin.....					11, 846. 99	¶¶3, 071, 419. 61
Total.....	113, 500. 12	77, 761. 98	4, 350. 02	1, 037. 75	208, 259. 11	48, 119, 956. 78

* 2,309.07 acres of this contained in indemnity patents under act of March 2, 1855.

† 4,880.20 acres of this contained in indemnity patents under act of March 2, 1855.

‡ 321,468.23 acres of this contained in indemnity patents under act of March 2, 1855.

§ 18,903.93 acres of this contained in indemnity patents under act of March 2, 1855.

|| 37,062.23 acres of this contained in indemnity patents under act of March 2, 1855.

¶¶ 34,910.75 acres of this contained in indemnity patents under act of March 2, 1855.

No. 6.—*Condition of bounty-land business under acts of 1847, 1850, 1852, and 1855, showing the issues and locations with bounty-land warrants, and the number outstanding, from the commencement of operations under said acts to June 30, 1878.*

Grade of warrants.	Number issued.	Acres embraced thereby.	Number located.	Acres embraced thereby.	Number outstanding.	Acres embraced thereby.
Act of 1847, 160 acres	80, 666	12, 906, 560	78, 939	12, 630, 240	1, 727	276, 320
Act of 1847, 40 acres	7, 583	303, 320	7, 060	282, 400	523	20, 920
Total.....	88, 249	13, 209, 880	85, 999	12, 912, 640	2, 250	297, 240
Act of 1850, 160 acres	27, 438	4, 390, 080	26, 770	4, 283, 200	668	106, 880
Act of 1850, 80 acres	57, 712	4, 616, 960	56, 148	4, 491, 840	1, 564	125, 120
Act of 1850, 40 acres	103, 971	4, 158, 840	100, 394	4, 015, 760	3, 577	143, 080
Total.....	189, 121	13, 165, 880	183, 312	12, 790, 800	5, 809	375, 080
Act of 1852, 160 acres	1, 223	195, 680	1, 191	190, 560	32	5, 120
Act of 1852, 80 acres	1, 698	135, 840	1, 660	132, 800	38	3, 040
Act of 1852, 40 acres	9, 064	362, 560	8, 872	354, 880	192	7, 680
Total.....	11, 985	694, 080	11, 723	678, 240	262	15, 840
Act of 1855, 160 acres	114, 279	18, 284, 640	108, 165	17, 306, 400	6, 114	978, 240
Act of 1855, 120 acres	96, 955	11, 634, 600	90, 120	10, 814, 400	6, 835	820, 200
Act of 1855, 100 acres	6	600	5	500	1	100
Act of 1855, 80 acres	49, 415	3, 953, 200	47, 714	3, 817, 120	1, 701	136, 080
Act of 1855, 60 acres	359	21, 540	308	18, 480	51	3, 060
Act of 1855, 40 acres	540	21, 600	462	18, 480	78	3, 120
Act of 1855, 10 acres	5	50	3	30	2	20
Total.....	261, 559	33, 916, 230	246, 777	31, 975, 410	14, 782	1, 940, 820
SUMMARY.						
Act of 1847	88, 249	13, 209, 880	85, 999	12, 912, 640	2, 250	297, 240
Act of 1850	189, 121	13, 165, 880	183, 312	12, 790, 800	5, 809	375, 080
Act of 1852	11, 985	694, 080	11, 723	678, 240	262	15, 840
Act of 1855	261, 559	33, 916, 230	246, 777	31, 975, 410	14, 782	1, 940, 820
Total.....	550, 914	60, 986, 070	527, 811	58, 357, 090	23, 103	2, 628, 980

J. A. WILLIAMSON, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE, *September 26, 1878.*

No. 7.—Statement exhibiting land concessions by acts of Congress to States and corporations for railroads and military wagon-road purposes from the year 1850 to June 30, 1878.

States.	Date of laws.	Statutes.	Page.	Name of road.	Mile limits.	Number of acres certified for the year ending June 30, 1878.	Number of acres certified or patented up to June 30, 1878.
Illinois	Sept. 20, 1850	9	466	Illinois Central	6 and 15	2,595,053.00	
Do	Sept. 20, 1850	9	466	Mobile and Chicago	6 and 15		
Mississippi	Sept. 20, 1850	9	466	Mobile and Ohio River	6 and 15	*737,130.29	
Do	Aug. 11, 1856	11	30	Vicksburg and Meridian	6 and 15	198,027.82	
Do	Aug. 11, 1856	11	30	Gulf and Ship Island	6 and 15		
Alabama	Sept. 20, 1850	9	466	Mobile and Ohio River	6 and 15	419,528.44	
Do	May 17, 1856	11	15	Alabama and Florida	6 and 15	394,522.99	
Do	June 3, 1856	11	17	Selma, Rome and Dalton	6 and 15	457,407.37	
Do	May 23, 1872	17	159	Act confirming lands heretofore certified to the State for the Alabama and Tennessee.			
Do	June 3, 1856	11	17	Coosa and Tennessee	6 and 15	†67,784.96	
Do	June 3, 1856	11	17	Mobile and Girard	6 and 15	†504,145.86	
Do	June 3, 1856	11	17	Alabama and Chattanooga	6 and 15	552,555.44	
Do	Apr. 10, 1869	16	45	Act to renew certain grants of land to the State of Alabama.			
Do	June 3, 1856	11	17	South and North Alabama	6 and 15	433,600.80	
Do	Mar. 3, 1857	11	200	Act amending the sixth section of original act.			
Do	Mar. 3, 1871	16	580	Act to renew certain grants of land to the State of Alabama.			
Florida	May 17, 1856	11	15	Florida Railroad	6 and 15	281,984.17	
Do	May 17, 1856	11	15	Florida and Alabama	6 and 15	165,688.00	
Do	May 17, 1856	11	15	Pensacola and Georgia	6 and 15	†1,275,212.93	
Do	May 17, 1856	11	15	Florida, Atlantic and Gulf Central	6 and 15	37,583.29	
Louisiana	June 3, 1856	11	18	North Louisiana and Texas	6 and 15	353,211.70	
Do	June 3, 1856	11	18	New Orleans, Opelousas and Great Western	6 and 15	†719,193.79	
Do	July 14, 1870	16	277	Act declaring forfeited to the United States all the lands not lawfully disposed of by the State.			
Arkansas	Feb. 9, 1853	10	155	Saint Louis, Iron Mountain and Southern	6 and 15	1,115,408.41	
Do	July 28, 1866	14	338	do	Additional 5	2,760.00	
Do	May 6, 1870	16	376	Resolution extending the time for completion of first twenty miles of road.			

* In the adjustment of this grant, the road was treated as an entirety, and without reference to the State line; hence, Alabama has approved to her more and Mississippi less land than they would appear to be entitled to in proportion to the length of road line in the respective States.

† No evidence of the construction of any part of these roads, as required by the acts, having been filed in the General Land Office, the grants are presumed to have lapsed, but the lands have not been restored to the mass of public lands, Congress having taken no action to that end.

{ Lands earned by the construction of eighty miles of road prior to June 3, 1866, 51,452.03 acres.

‡ Lands within the limits of New Orleans, Baton Rouge and Shreveport Railroad grant of March 3, 1871, 227,879.94 acres.

{ Lands restored to market March, 1873, under the act of July 14, 1870, 439,861.82 acres.

No. 7.—Statement exhibiting land concessions by acts of Congress to States and corporations, &c.—Continued.

States.	Date of laws.	Statutes.	Page.	Name of road.	Mile limits.	Number of acres certified for the year ending June 30, 1878.	Number of acres certified up to June 30, 1878.
Arkansas	Feb. 9, 1853	10	155	Little Rock and Fort Smith	6 and 15	.....	550, 520. 18
Do	July 28, 1866	14	338	do	Additional 5	.....	366, 196. 26
Do	Apr. 10, 1869	16	46	Act extending time for completion of first twenty miles of road.			
Do	Mar. 8, 1870	16	76	Act repealing provision in act of April 10, 1869, as to mode of sales of land.			
Do	Feb. 9, 1853	10	155	Memphis and Little Rock	6 and 15	.....	127, 238. 51
Do	July 28, 1866	14	338	do	Additional 5	.....	14, 606. 19
Do	July 4, 1866	14	83	Saint Louis and Iron Mountain	10 and 20	.....	
Missouri	June 10, 1852	10	8	Southwest Branch of the Pacific Road	6 and 15	.....	1, 161, 204. 51
Do	June 5, 1862	12	422	Act extending the time for completion of road ten years.			
Do	June 10, 1852	10	8	Hannibal and Saint Joseph	6 and 15	.....	603, 506. 34
Do	Feb. 9, 1853	10	155	Saint Louis, Iron Mountain and Southern	6 and 15	.....	63, 294. 17
Do	July 28, 1866	14	338	do	Additional 5	.....	
Do	July 4, 1866	14	83	Saint Louis and Iron Mountain	10 and 20	.....	
Iowa	May 15, 1856	11	9	Burlington and Missouri River	6 and 15	.....	292, 170. 80
Do	June 2, 1864	13	96	do	20	.....	96, 646. 55
Do	Feb. 10, 1866	14	349	Resolution extending the time for completion of road.			
Do	May 15, 1856	11	9	Chicago, Rock Island and Pacific	6 and 15	.....	482, 094. 36
Do	June 2, 1864	13	98	do	20	.....	*161, 212. 81
Do	Jan. 31, 1873	17	421	Act to quiet the title to certain lands in the State of Iowa.			
Do	June 15, 1878	Pam. laws.	133	Act to restore certain lands in Iowa to settlement under the homestead law, &c.			
Do	May 15, 1856	11	9	Cedar Rapids and Missouri River	6 and 15	.....	*782, 069. 83
Do	June 2, 1864	13	96	do	20	.....	358, 423. 70
Do	May 15, 1856	11	9	Dubuque and Sioux City	6 and 15	.....	*549, 345. 41
Do	June 2, 1864	13	98	Act authorizing said road to change its line.			
Do	Mar. 2, 1868	15	38	Act extending the time for completion of road to January 1, 1872.			
Do	May 15, 1856	11	9	Iowa Falls and Sioux City	6 and 15	.....	683, 023. 80
Do	May 12, 1864	13	72	Chicago, Milwaukee and Saint Paul, formerly McGregor and Missouri River	10 and 20	.....	138, 284. 69
Do	May 12, 1864	13	72	Sioux City and Saint Paul	10 and 20	.....	396, 998. 80
Michigan	June 3, 1856	11	21	Port Huron and Lake Michigan	6 and 15	.....	37, 427. 43
Do	June 3, 1856	11	21	Jackson, Lansing and Saginaw	6 and 15	.....	743, 009. 36
Do	July 3, 1866	14	78	Act extending the time for completion of road seven years, &c.			
Do	Mar. 2, 1867	14	425	Act extending the time for completion of first twenty miles of road.			
Do	Mar. 3, 1871	16	586	Act authorizing change of northern terminus from Traverse Bay to Straits of Mackinaw, and for other purposes.			

Do.....	June 3, 1856	11	21	Flint and Pere Marquette.....	6 and 15	512, 337. 03
Do.....	Feb. 17, 1865	13	569	Resolution extending time for completion of road.		
Do.....	July 3, 1866	14	78	Act authorizing the company to change its western terminus of road.		
Do.....	Mar. 3, 1871	16	582	Act extending time for completion of road five years.		
Do.....	June 3, 1856	11	21	Grand Rapids and Indiana.....	6 and 15	629, 993. 11
Do.....	June 7, 1864	13	119	Grand Rapids and Indiana, from Fort Wayne, Ind., to Grand Rapids.	6 and 20	222, 967. 01
Do.....	Mar. 3, 1865	13	520	Act extending time for completion of road eight years.		
Do.....	June 3, 1856	11	21	Marquette, Houghton and Ontonagon.....	6 and 15	437, 385. 00
Do.....	Mar. 3, 1865	13	521	do.....	20	
Do.....	May 20, 1868	15	252	Resolution extending time for completion of road, &c.		
Do.....	Apr. 20, 1871	17	643	Act authorizing the Houghton and Ontonagon Railroad Company to resurvey and locate anew a part of its road.		
Do.....	Mar. 3, 1865	13	521	Bay de Noquet and Marquette.....	200 sections	128, 000. 00
Do.....	July 5, 1862	12	620	Chicago and Northwestern.....	6 and 15	517, 868. 15
Do.....	Mar. 3, 1865	13	520	do.....	20	
Do.....	May 23, 1872	17	160	Act authorizing change of route in Michigan.		
Wisconsin	June 3, 1856	11	20	Chicago, Saint Paul and Minneapolis, formerly the West Wisconsin.	6 and 15	327, 903. 69
Do.....	May 5, 1864	13	66	do.....	10 and 20	474, 913. 20
Do.....	Mar. 3, 1873	17	634	Act to quiet the title to the lands of the settlers on lands claimed by the West Wisconsin Railway Company.		
Do.....	June 3, 1856	11	20	Wisconsin Railroad Farm Mortgage Land Company.....		40, 049. 11
Do.....	July 27, 1868	15	238	Act amendatory of the original act.		
Do.....	June 3, 1856	11	20	Saint Croix and Lake Superior.....	6 and 15	524, 538. 15
Do.....	May 5, 1864	13	66	do.....	10 and 20	
Do.....	June 3, 1856	11	20	Branch to Bayfield.....	6 and 15	318, 959. 41
Do.....	May 5, 1864	13	66	do.....	10 and 20	
Do.....	June 3, 1856	11	20	Chicago and Northwestern.....	6 and 15	545, 575. 76
Do.....	Apr. 25, 1862	12	618	Resolution authorizing change of route in Wisconsin, &c.		
Do.....	Mar. 3, 1865	13	520	Act extending time for completion of road five years.		
Do.....	Mar. 3, 1869	15	397	Authorizing selections of lands along the full extent of original route of road.		
Do.....	May 5, 1864	13	66	Wisconsin Central.....	10 and 20	546, 446. 05
Do.....	June 21, 1866	14	360	Resolution explanatory of the act of May 5, 1864, and authorizing certain changes of width, in accordance with the act of the State legislature.	102, 622. 89	
Do.....	Apr. 9, 1874	18	28	Act to extend the time for completion of road to December 31, 1876.		
Minnesota	Mar. 3, 1857	11	195	First Division Saint Paul and Pacific.....	6 and 15	466, 403. 48
Do.....	Mar. 3, 1865	13	526	do.....	10 and 20	781, 780. 70
Do.....	Mar. 3, 1873	17	631	Act extending time for completion of road nine months.		
Do.....	Mar. 3, 1857	11	195	Western Railroad, formerly Brainard Branch, Saint Paul and Pacific.	6 and 15	436, 695. 16
Do.....	Mar. 3, 1865	13	526	do.....	10 and 20	101, 147. 26
Do.....	July 12, 1862	12	624	Resolution authorizing the State to change the branch line under certain conditions.		
Do.....	Mar. 3, 1871	16	588	Saint Vincent Extension Saint Paul and Pacific, south terminus changed from Crow-Wing to Saint Cloud.	10 and 20	780, 291. 75
Do.....	Mar. 3, 1873	17	631	Act extending time for completion of road nine months.		
Do.....	June 22, 1874	18	203	Act extending time for completion of road to March 3, 1876, &c.		
Do.....	Mar. 3, 1857	11	195	Minnesota Central.....	6 and 15	176, 456. 08
Do.....	Mar. 3, 1865	13	526	do.....	10 and 20	3, 279. 93

* Includes 35,685.49 acres of the Chicago, Rock Island and Pacific Railroad; 109,756.85 acres of the Cedar Rapids and Missouri River Railroad; and 77,535.22 acres of the Dubuque and Sioux City Railroad, situated in the old Des Moines River grant of August, 1846, which amounts are a loss to the roads by the decision of the United States Supreme Court in the case of the Dubuque and Pacific Railroad Company *vs.* Litchfield, 23 Howard, p. 66.

No. 7.—Statement exhibiting land concessions by acts of Congress to States and corporations, &c.—Continued.

States.	Date of laws.	Statutes.	Page.	Name of road.	Mile limits.	Number of acres certified or patented for the year ending June 30, 1878.	Number of acres certified or patented up to June 30, 1878.
Minnesota	Mar. 3, 1857	11	195	Winona and Saint Peter	6 and 15	341,563.48	341,563.48
Do.	Mar. 3, 1865	13	526	do	10 and 20	1,323,514.90	1,323,514.90
Do.	July 13, 1866	14	97	Act allowing selections within twenty miles of road in lieu of lands sold after definite location but prior to withdrawal, &c.			
Do.	Jan. 13, 1873	17	409	Act extending the time for completion of road.			
Do.	Mar. 3, 1857	11	195	Saint Paul and Sioux City	6 and 15	959,319.24	959,319.24
Do.	May 12, 1864	13	74	do	10 and 20	240,529.83	240,529.83
Do.	July 13, 1866	14	97	Act extending the time for completion of road seven years.			
Do.	May 5, 1864	13	64	Lake Superior and Mississippi	10 and 20	860,564.09	860,564.09
Do.	July 13, 1866	14	93	Act authorizing the railroad company to make up deficiency of land within thirty miles of west line of road.			
Do.	July 4, 1866	14	87	Southern Minnesota	10 and 20	285,403.74	285,403.74
Do.	July 4, 1866	14	87	Hastings and Dakota	10 and 20	169,790.81	169,790.81
Do.	Mar. 3, 1863	12	772	Leavenworth, Lawrence and Galveston	10 and 20	*256,281.66	*256,281.66
Do.	July 1, 1864	13	339	Act authorizing change of route of branch line.			
Do.	Apr. 10, 1871	17	5	Act authorizing the company to relocate a portion of its road.			
Do.	July 24, 1876	19	101	Act declaring a portion of the grant forfeited.			
Do.	Mar. 3, 1863	12	772	Missouri, Kansas and Texas	10 and 20	*658,068.13	*658,068.13
Do.	July 1, 1864	13	339	Act extending grant from Emporia to a point near Fort Riley.			
Do.	July 26, 1866	14	289	Act making grant from Fort Riley to the southern boundary of the State.			
Do.	Mar. 3, 1863	12	712	Atchison, Topeka and Santa Fé	10 and 20	2,474,686.47	2,474,686.47
Do.	July 23, 1866	14	210	Saint Joseph and Denver City	10 and 20	441,158.25	441,158.25
Do.	July 25, 1866	14	236	Missouri River, Fort Scott and Gulf	10 and 20	21,341.77	21,341.77
Do.	Mar. 3, 1877	19	404	An act to secure the rights of settlers upon certain railroad lands, and to repeal the first five sections of an act granting lands to the State of Kansas to aid in the construction of the Kansas and Neosho Valley Railroad, &c.			
Do.	July 1, 1862	12	489	Union Pacific from Omaha, Nebr., to a point near Ogden, in Utah Territory.	10		
Do.	July 2, 1864	13	356	Union Pacific	20	1,842.47	1,842.47
Do.	July 3, 1866	14	79	Act authorizing location of Union Pacific Railroad from Omaha westward.			
Do.	July 26, 1866	14	367	Resolution granting right of way through military reserve, &c.			
Do.	Apr. 10, 1869	16	56	Resolution for the protection of the interests of the United States in the Union Pacific and Central Pacific Railroads, and providing that the common terminus of the road shall be at or near Ogden, Utah Territory, &c.			
Do.	May 6, 1870	16	121	Act fixing the point of junction of the Union Pacific and Central Pacific Railroads, &c.			
Do.	May 6, 1878	Pam. laws.	56	An act amendatory of the acts of July 1, 1862, and July 2, 1864.			

Do	July 1, 1862	12	489	Central Pacific	10	14,703.18	708,862.17
Do	July 2, 1864	13	356	do	20		
Do	July 3, 1866	14	79	An act authorizing location of Central Pacific Railroad eastward.			
Do	Apr. 10, 1869	16	56	Resolution for the protection of the interests of the United States in the Central Pacific and Union Pacific Railroads, and providing that the common terminus of the road shall be at or near Ogden, Utah Territory, &c.			
Do	May 6, 1870	16	121	Act fixing the point of junction of the Central Pacific and Union Pacific Railroads.			
Do	May 6, 1878	Pam. laws.	56	An act amendatory of the acts of July 1, 1862, and July 2, 1864.			
Do	July 1, 1862	12	489	Central Pacific, successor by consolidation with Western Pacific	10		
Do	July 2, 1864	13	356	Central Pacific	20	120.00	422,718.18
Do	Mar. 3, 1865	13	594	Act ratifying the assignment made by the Central Pacific Railroad Company to the Western Pacific Railroad Company of that portion from San José to the city of Sacramento.			
Do	May 21, 1866	14	356	Resolution extending the time for completion of first section of twenty miles of Western Pacific Railroad upon certain conditions.			
Do	July 1, 1862	12	489	Central Branch Union Pacific	10		
Do	July 2, 1864	13	356	do	20		186,453.28
Do	July 1, 1862	12	489	Kansas Pacific	10		
Do	July 2, 1864	13	356	do	20	240,857.93	772,119.64
Do	July 3, 1866	14	79	Act requiring the company to designate general route before December 1, 1866.			
Do	May 7, 1866	14	355	Resolution extending time for completion of road.			
Do	Mar. 6, 1868	15	39	Act restoring the even numbered sections on line of Pacific railroads and branches at \$2.50 per acre.			
Do	Mar. 3, 1869	15	324	Act extending the Union Pacific Railway, eastern division line of road, to Denver City, and authorizing transfer of lands by said company to the Denver Pacific Railroad Company, between Denver and Cheyenne.			
Do	Mar. 3, 1869	15	348	Resolution authorizing the Union Pacific Railway Company, eastern division, to change its name to Kansas Pacific.			
Do	Mar. 3, 1869	15	324	Denver Pacific	20		49,811.59
Do	June 20, 1874	18	111	Act making additions to the fifteenth section of the act approved July 2, 1864.			
Do	July 2, 1864	13	364	Burlington and Missouri River	20 sections per mile.		2,374,090.77
Do	May 6, 1870	16	118	Act authorizing the change of route and connection with the Union Pacific Railroad at or near Fort Kearney.			
Do	July 2, 1864	13	363	Sioux City and Pacific	10	640.00	41,318.23
Do	July 2, 1864	13	365	Northern Pacific	States, 20, 30, and 40.		743,493.44
Do	May 7, 1866	14	355	Resolution extending time for commencing and completing road.	Territories, 40, 50, and 60.		
Do	July 1, 1868	15	255	Resolution extending time for commencing and completing road.			
Do	Mar. 1, 1869	15	346	Resolution authorizing issue of bonds, &c.			
Do	Apr. 10, 1869	16	57	Resolution authorizing the company to extend its branch line from Portland to Puget Sound, &c.			
Do	May 31, 1870	16	378	Resolution authorizing the issue of mortgage bonds, reversing locations of main and branch lines in Washington Territory, extending indemnity limits, &c.			
Do	July 15, 1870	16	305	Act requiring the Northern Pacific Railroad Company to pay the cost of surveying, &c.			

* Includes 186,936.72 acres of the Leavenworth, Lawrence and Galveston Railroad, and 260,425.35 acres of the Missouri, Kansas and Texas Railway, situated in the "Osage ceded reservation," which amounts are a loss to the roads, by the decision of the United States Supreme Court, at its October term, 1875.

No. 7.—Statement exhibiting land concessions by acts of Congress to States and corporations, &c.—Continued.

States.	Date of laws.	Statutes.	Page.	Name of roads.	Mile limits.	Number of acres certified for the year ending June 30, 1878.	Number of acres certified up to June 30, 1878.
Corporations.....	July 13, 1866	14	94	*Placerville and Sacramento Valley.....	10 and 20	.....	.....
Do.....	Apr. 15, 1874	18	29	Act declaring the grant forfeited to the United States.	20 and 30	10, 864. 62	550, 764. 90
Do.....	July 25, 1866	14	239	Oregon branch of the Central Pacific.....	20 and 30	.....	.....
Do.....	June 25, 1868	15	80	Act extending the time for completion of road.	20 and 30	.....	.....
Do.....	Apr. 10, 1869	16	47	Act amendatory of the original act and providing for the sale of the lands to actual settlers at a fixed price and limited quantity.	20 and 30	.....	323, 148. 68
Do.....	July 25, 1866	14	239	Oregon and California.....	States, 20 and 30; Territo- ries, 40 and 50.	.....	504, 536. 60
Do.....	June 25, 1868	15	80	Act extending the time for completion of road.	20 and 30	.....	.....
Do.....	Apr. 10, 1869	16	47	Act amendatory of the original act, and providing for the sale of the lands to actual settlers at a fixed price and limited quantity.	20 and 30	.....	.....
Do.....	July 27, 1866	14	292	Atlantic and Pacific.....	20 and 30	.....	.....
Do.....	Apr. 20, 1871	17	19	Act authorizing the company to mortgage its road.	20 and 30	230, 540. 30	939, 579. 27
Do.....	July 27, 1866	14	292	Southern Pacific.....	20 and 30	.....	.....
Do.....	July 25, 1868	15	187	Act to extend the time for the construction of the road, &c.	20 and 30	.....	.....
Do.....	June 28, 1870	16	382	Joint resolution concerning the Southern Pacific Railroad of California.	20 and 30	.....	41, 178. 23
Do.....	Mar. 3, 1871	16	579	Branch line of Southern Pacific.....	10 and 20	.....	.....
Do.....	Mar. 2, 1867	14	548	*Stockton and Copperopolis.....	20 and 25	.....	.....
Do.....	June 15, 1874	18	72	Act declaring the grant forfeited to the United States.	California, 20 and 30; Ter- ritories, 40 and 50.	.....	.....
Do.....	May 4, 1870	16	94	Oregon Central.....	20 and 30	.....	.....
Do.....	Mar. 3, 1871	16	573	Texas Pacific.....	20 and 30	.....	.....
Do.....	Mar. 3, 1871	16	579	New Orleans, Baton Rouge, and Vicksburgh.....	3 and 15	.....	302, 930. 36
Wisconsin.....	Mar. 3, 1863	12	797	From Fort Wilkins, Copper Harbor, Mich., to Fort Howard, Green Bay, Wis.....	3 and 6	.....	.....
Do.....	June 8, 1868	15	67	Act extending time for completion of road to March 1, 1870.	3 and 15	.....	221, 013. 35
Do.....	May 6, 1870	16	121	Act extending time for completion of road to January 1, 1872.	.....	.....	.....
Do.....	June 25, 1864	13	183	Act granting lands to the State to build a military road to Lake Superior.....	.....	.....	.....
Michigan.....	Mar. 3, 1863	12	797	From Fort Wilkins, Copper Harbor, Mich., to Fort Howard, Green Bay, Wis.....	.....	.....	.....
Do.....	June 8, 1868	15	67	Act extending time for completion of road to March 1, 1870.	.....	.....	.....
Do.....	May 6, 1870	16	121	Act extending time for completion of road to January 1, 1872.	.....	.....	.....
Do.....	Apr. 24, 1872	17	56	Act extending time for completion of road to January 1, 1874.	.....	.....	.....

WAGON ROADS.

Do.....	June 20, 1864	13	140	No map filed; limitations of grant expired June 20, 1869.		3	361, 327. 43
Oregon	July 2, 1864	13	355	Oregon Central military road		6	
Do.....	Dec. 26, 1866	14	374	Act making provision for indemnity limits			
Do.....	Mar. 3, 1869	15	338	Act extending time for completion of road to July 2, 1872.			
Do.....	July 4, 1866	14	86	Corvallis and Aquina Bay	} 3 alternate sections to be selected within six miles.	3	57, 506. 89
Do	July 5, 1866	14	89	Willamette Valley and Cascade Mountain			107, 942. 28
Do.....	Feb. 27, 1867	14	409	Dalles military road	3 and 10		126, 910. 23
Do.....	Mar. 3, 1869	15	340	Coos Bay military road	3 and 6		91, 026. 10

* Grants declared forfeited by Congress.

Statement exhibiting land concessions, &c.—Continued.

RECAPITULATION.

States.	Number of acres certified or pat- ented for the year ending June 30, 1878.	Number of acres certified or pat- ented under the grant.
Illinois		2, 595, 053. 00
Mississippi		935, 158. 11
Alabama		2, 829, 545. 86
Florida		1, 760, 468. 39
Louisiana		1, 072, 405. 49
Arkansas	2, 760. 00	2, 378, 890. 63
Missouri		1, 828, 005. 02
Iowa		3, 940, 270. 75
Michigan		3, 228, 987. 09
Wisconsin	102, 622. 89	2, 778, 385. 37
Minnesota	1, 389. 26	6, 926, 740. 45
Kansas		3, 851, 536. 28
Corporations:		
Pacific railroads	106, 772. 15 499, 568. 50	34, 125, 446. 44 9, 017, 981. 07
Wagon roads—Wisconsin	606, 340. 65	43, 143, 427. 51
Michigan		302, 930. 36
Oregon		221, 013. 35
		744, 712. 93
Deduct for land declared forfeited by Congress	606, 340. 65	44, 412, 084. 15 667, 741. 76
Total	606, 340. 65	43, 744, 342. 39

Rights of way granted to railway companies in certain States and Territories.

States and Territories.	Date of laws.	Statute.	Page.	Name of company.
Iowa	June 4, 1872	17	220	Davenport and Saint Paul Railroad.
Florida	June 4, 1872	17	224	Great Southern Railway.
Do	June 7, 1872	17	280	Jacksonville and Saint Augustine Railroad.
Do	Mar. 3, 1875	18	509	Jacksonville, Pensacola and Florida Railroad.
Do	Mar. 3, 1875	18	482	Atlantic, Gulf and Western India Transit Rail- road.
Florida and Alabama	Mar. 3, 1875	18	482	West Florida and Mobile Railroad.
Do	June 8, 1872	17	340	Pensacola and Louisville Railroad.
Wisconsin	Mar. 3, 1875	18	482	Black River Railroad.
Minnesota and Dakota {	Mar. 3, 1875	18	482	{ Worthington and Sioux Falls Railroad.
	Apr. 2, 1878	*	32	
Dakota	May 27, 1872	17	162	Dakota Southern Railroad.
Do	June 1, 1872	17	202	Dakota Grand Trunk Railway.
Do	Mar. 3, 1875	18	482	Sioux City and Pembina Railroad.
Utah	Dec. 15, 1870	16	395	Utah Central Railroad.
Do	Mar. 3, 1875	18	482	Wasatch and Jordan Valley Railroad.
Do	Mar. 3, 1875	18	482	Utah Southern Railroad.
Do	Mar. 3, 1875	18	482	San Pete Valley Railroad.
Do	Mar. 3, 1875	18	482	Utah Western Railroad.
Do	Mar. 3, 1875	18	482	Bingham Cañon and Camp Floyd Railroad.
Colorado	June 8, 1872	17	339	Denver and Rio Grande Railway.
Do	June 23, 1874	18	274	Arkansas Valley Railway.
Do	Mar. 3, 1875	18	482	Colorado and New Mexico Railroad.
Do	Mar. 3, 1875	18	482	Denver and Middle Park Railway.
Do	Mar. 3, 1875	18	482	Spanish Range Railway.
Do	Mar. 3, 1875	18	482	Pueblo and Arkansas Valley Railroad.
Do	Mar. 3, 1875	18	482	Denver, South Park and Pacific Railroad.

* Pamphlet laws.

Rights of way granted to railway companies, &c.—Continued.

States and Territories.	Date of laws.	Statute.	Page.	Name of company.
Colorado.....	Mar. 3, 1875	18	482	Pueblo and Salt Lake Railway.
Do.....	Mar. 3, 1875	18	482	Arkansas Valley and New Mexican Railway.
Do.....	Mar. 3, 1875	18	482	Cañon City and San Juan Railway.
Do.....	Mar. 3, 1875	18	482	Saint Vrain Railroad.
Do.....	Mar. 3, 1875	18	482	Upper Arkansas, San Juan and Pacific Railroad.
Colorado and Wyoming.....	Mar. 3, 1875	18	482	Colorado Central Railroad.
Wyoming.....	Mar. 3, 1875	18	482	Wyoming Central Railroad.
Do.....	Mar. 3, 1875	18	482	Evanston and Montana Railroad.
Oregon.....	Mar. 3, 1875	18	482	Port Orford and Roseburg Railroad.
Do.....	Mar. 3, 1875	18	482	Blue Mountain and Columbia River Railroad.
Oregon and Utah.....	Apr. 12, 1872	17	52	{ Portland, Dalles and Salt Lake Railroad.
	Mar. 3, 1873	17	612	
Nevada and Oregon.....	Feb. 5, 1875	18	306	Oregon Central Railway.
California.....	June 20, 1874	18	130	Nevada County Narrow-Gauge Railroad.
Do.....	Mar. 3, 1875	18	482	Salmon Creek Railroad.
Washington.....	Mar. 3, 1869	15	325	{ Walla Walla and Columbia River Railroad.
	Mar. 3, 1873	17	613	
				{ Act amendatory of the original.
New Mexico.....	June 8, 1872	17	343	New Mexico and Gulf Railway.
Utah, Idaho, and Montana.....	June 1, 1872	17	212	Utah, Idaho and Montana Railroad.
Do.....	Mar. 3, 1873	17	612	{ Utah and Northern Railroad, Utah and North-
Do.....	June 20, 1878	*	241	

* Pamphlet laws.

No. 8.—Statement exhibiting land concessions by acts of Congress to States for canal purposes from the year 1827 to June 30, 1878.

States.	Date of laws.	Statute.	Page.	Name of canal.	Total number of acres granted and certified.
Indiana.....	Mar. 26, 1864	4	47	{ Wabash and Erie Canal.....	234, 246. 73
Do.....	Mar. 2, 1827	4	236		29, 552. 50
Do.....	May 3, 1830	4	416		259, 368. 48
Do.....	Feb. 27, 1841	5	414		24, 219. 83
Do.....	Aug. 29, 1842	5	542		796, 630. 19
Do.....	Mar. 3, 1845	5	731		113, 348. 33
Do.....	May 9, 1848	9	219	{ Wabash and Erie Canal.....	266, 535. 00
Ohio.....	Mar. 2, 1827	4	236		333, 826. 00
Do.....	June 30, 1834	4	716	{ Miami and Dayton.....	500, 000. 00
Do.....	May 24, 1828	4	305		290, 915. 00
Do.....	Apr. 3, 1830	4	393	{ General canal purposes.....	125, 431. 00
Do. (Sec. 5).....	May 24, 1828	4	306		200, 000. 00
Illinois.....	Mar. 2, 1827	4	234	{ Canal to connect the waters of the Illinois River with those of Lake Michigan.....	750, 000. 00
Wisconsin.....	June 18, 1838	5	245		200, 000. 00
Do.....	Apr. 10, 1866	14	39	{ Milwaukee and Rock River Canal.....	750, 000. 00
Do.....	Mar. 7, 1874	18	20		200, 000. 00
Michigan.....	Aug. 26, 1852	10	35	{ Breakwater and Harbor and Ship Canal.....	200, 000. 00
Do.....	Mar. 3, 1865	13	519		200, 000. 00
Do.....	July 3, 1866	14	81	{ Act extending the time for completion of Green Bay and Sturgeon Bay and Lake Michigan Ship Canal.....	200, 000. 00
Do.....	July 6, 1866	14	80		100, 000. 00

RECAPITULATION.

Indiana.....	1, 457, 366. 06
Ohio.....	1, 100, 361. 00
Illinois.....	290, 915. 00
Wisconsin.....	325, 431. 00
Michigan.....	1, 250, 000. 00
Total quantity of acres granted and certified.....	4, 424, 073. 06

ATTACHMENT OF RAILROAD RIGHTS.

No. 9.—Table showing the time when the various railroad rights attach to the lands granted, so far as at present determined.

States.	Names of roads.	Dates.
Illinois	Illinois Central	September 20, 1850. (Grant fully adjusted.)
Mississippi	Mobile and Ohio River	September 20, 1850. (Grant fully adjusted.)
	Vicksburg and Meridian	August 31, 1850. (Grant fully adjusted.)
	Gulf and Ship Island	*November, 1860.
Alabama	Mobile and Ohio River	September 20, 1850. (Grant fully adjusted.)
	Alabama and Florida	*August 30, 1856.
	Selma, Rome and Dalton	May 20, 1857.
	Coosa and Tennessee	*December 27, 1858.
	Coosa and Chattanooga	*July 3, 1858.
	Mobile and Girard	*May 13, 1858.
	Alabama and Chattanooga, formerly the Northeastern and Southwestern and Wills Valley.	*October 11, 1858.
	South and North Alabama, formerly the Tennessee and Alabama Central.	May 22, 1866, between Decatur and a junction with the Alabama and Tennessee Railroad, in township 22 south, range 2 west, and May 30, 1871, between that point and Montgomery.
Florida	Florida Railroad	*From survey in the field, which was between May 17, 1856, and January 10, 1857.
	Florida and Alabama	*From May 17 to 31, 1856.
	Pensacola and Georgia	*March 3, 1857, between Tallahassee and Alligator, in township 13 south, range 17 east, and from September 1 to October 22, 1857, between Tallahassee and Pensacola.
	Florida, Atlantic and Gulf Central.	*February 17, 1857, in the granted, and September 7, 1857, in the indemnity limits.
Louisiana	North Louisiana and Texas, formerly Vicksburg, Shreveport and Texas.	January 27, 1857.
	New Orleans, Opelousas and Great Western.	†October 9, 1856, between New Orleans and Brashear City.
Arkansas	Little Rock and Fort Smith	August 13, 1855, and, under the reviving act, May 13, 1867.
	Saint Louis, Iron Mountain and Southern, formerly Cairo and Fulton.	January 17, 1855, and, under the reviving act, July 28, 1866.
	Memphis and Little Rock	August 18, 1855, and, under the reviving act, May 13, 1867.
Missouri	Hannibal and Saint Joseph	March 8, 1853, in the granted, and June 16, 1853, in the indemnity limits. (Grant virtually adjusted.)
	Pacific and Southwestern Branch.	1853. (Grant fully adjusted.)
	Saint Louis and Iron Mountain Extension.	April 7, 1870.
Iowa	Burlington and Missouri River	March 24, 1857. (See Supreme Court Reports, 9 Wallace, p. 89, Railroad Company vs. Fremont County.)
	Chicago, Rock Island and Pacific ..	Survey in the field, which was from October 21, 1856, to March 2, 1857.
	Cedar Rapids and Missouri River ..	Survey in the field, which was from September 1, 1856, to July 12, 1857.
	Dubuque and Sioux City	Survey in the field, which was from May 30 to August 31, 1856.
	Iowa Falls and Sioux City	Survey in the field, which was from May 30 to August 31, 1856.
	Chicago, Milwaukee and Saint Paul, formerly McGregor and Missouri River.	*August 19, 1864, from McGregor to section 12, township 95 north, range 35 west.
	Sioux City and Saint Paul	From that point to the southwest corner section 18, township 96 north, range 38 west, between November 30 and December 5, 1868, and from that point to a connection with the Saint Paul and Sioux City Road, between June 28 and 30, 1869, the dates of survey in the field.
Michigan	Jackson, Lansing and Saginaw	Survey in the field, which was between September 27 and October 4, 1866.
	Flint and Pere Marquette	August 4, 1858.
	Grand Rapids and Indiana	August 3, 1857.
		November 17, 1857, between Grand Rapids and the Straits of Mackinac.
		March 15, 1856, between Grand Rapids and Fort Wayne, Indiana.

* Time taken as definite location from data on file in this office, subject, however, to correction upon receipt of evidence to the contrary.

† By the act of July 14, 1870, the lands granted west of Brashear City were declared forfeited to the government, and have since been restored to homestead entry, excepting those falling within the limits of the grant of March 3, 1871, to the New Orleans, Baton Rouge and Vicksburg Railroad.

No. 9.—Table showing the time when the various railroad rights attach, &c.—Continued.

States.	Names of roads.	Dates.
Michigan—Con'd.	Bay de Noquet and Marquette	December 1, 1857. (See Secretary's decision of April 12, 1859, Lester.)
	Houghton and Ontonagon	June 23, 1859.
Wisconsin	Chicago and Northwestern	From Fond du Lac to the north boundary of the State. Survey in the field, which was between May 1, 1856, and October 16, 1857.
	Chicago and Northwestern	May 1, 1856, and October 16, 1857.
	Wisconsin Central	September 7, 1869.
	Chicago, Saint Paul and Minneapolis, formerly the West Wisconsin.	July 13, 1857, from Tamah to Lake Saint Croix, March 23, 1865, to additional grant under act May 5, 1864.
	Madison and Portage	June 16, 1857.
	Wisconsin Railroad Farm Mortgage Company.	July 13, 1857.
	Saint Croix and Lake Superior and branch to Bayfield.	November 2, 1857, entire main line, except between Prescott and the south line of township 34 north, which was from November 24 to December 8, 1857, survey in the field. Branch line from survey in the field, which was between May 3 and June 10, 1858. April 22, 1865, to additional grant under act of May 5, 1864.
Minnesota	Saint Paul and Pacific	November 9, 1857, within 6-mile limits, and January 16, 1858, between 6 and 15 mile limits of the main line and branch to Crow Wing, and March 3, 1865, to additional grant under that act.
	Saint Paul and Pacific, Saint Vincent Extension.	From survey in the field, which was between May 18 and September 21, 1871.
	Winona and Saint Peter	July 17, 1857, from Winona to the west line of township 110, range 31 west, in the 6-mile limits, and March 22, 1858, between the 6 and 15 mile limits. From that point to the west line of township 108, range 37 west, survey in the field, which was in April, 1864. (See Secretary's decision of August 15, 1874.)
	Minnesota Central	January 19, 1867, from that point to the Big Sioux River, in Dakota Territory. To original grant, from survey in the field, which was between June 8 and July 25, 1857, and to additional grant under act of March 3, 1865, date of act.
	Saint Paul and Sioux City	From Saint Paul to section 28, township 106 north, range 34 west, survey in the field, which was from June 8 to October, 1857, in the 6-mile limits, and March 28, 1858, between the 6 and 15 mile limits. From that point to section 30, township 104 north, range 39 west, from October 31 to November 8, 1858, within both 6 and 15 mile limits. From that point to the southern boundary of Minnesota, June 29, 1866. To the additional grant under the act of May 12, 1864, from date of act, where the road was already definitely located.
	Lake Superior and Mississippi	September 25, 1866.
	Hastings and Dakota	March 7, 1867.
	Southern Minnesota	From the Mississippi River to Houston, survey in the field, which was from July 21 to August 5, 1857. From Houston to section 22, township 104 north, range 8 west, July 4, 1866. From that point to section 2, township 103 north, range 18 west, January 1, 1867. From that point to section 21, township 104 north, range 37 west, November 29, 1866. From that point to section 4, township 104 north, range 39 west, October 24, 1866. From that point to the western boundary of the State, from survey in the field, which was between October 18 and 26, 1870.
Kansas	Missouri, Kansas and Texas	From Junction City to Humboldt, December 3, 1866. From Humboldt to southern boundary of State, January 7, 1868. November 15, 1866, from Lawrence to the north boundary of the Osage lands. November 26, 1867, to the southern boundary of Kansas.
	Leavenworth, Lawrence and Galveston.	March 21, 1870.
	Saint Joseph and Denver City	

No. 9.—Table showing the time when the various railroad rights attach, &c.—Continued.

States.	Names of roads.	Dates.
Kansas—Cont'd..	Atchison, Topeka and Santa Fé...	From Atchison to Emporia, survey in the field, which was from November 28, 1865, to January 13, 1866. From Emporia to Wichita, survey in the field, which was from May 18 to July 13, 1869. From the sixth principal meridian near Newton to section 27, township 23 south, range 5 west, September 23, 1871. From that point west to section 33, township 22 south, range 6 west, October 8, 1870. From that point west to the mouth of Pawnee Creek, in township 22 south, range 16 west, survey in the field, which was from June 21 to December 1, 1870. From that point to the west line of range 27 west, March 22, 1872. From that point to the western boundary of the State, May 30, 1872.
	CORPORATIONS.	
	Union Pacific.....	First one hundred miles west from Omaha, October 19, 1864. Second one hundred miles, June 20, 1866. From the 200th to the 380th mile post, November 23, 1866. From the 380th mile post to Brown's Summit (nearly to the 700th mile post), survey in the field, which was from April 1 to November 15, 1867. From Brown's Summit to Ogden, survey in the field, which was from May 1 to July 30, 1868. Withdrawal takes effect for the first hundred miles of road within 15-mile limits December 16, 1863, the date when the company filed their map of general route in the department, and between the 15 and 20 mile limits July 2, 1864, date of additional grant. Withdrawal takes effect from the 100th mile post west from Omaha to Salt Lake City June 28, 1865, the date when the map of general route was filed in the department. (See Secretary's decision of February 27, 1875.)
	Central Pacific.....	From Sacramento east to the south line of township 13 north, range 8 east, within ten miles of the road, June 1, 1863, and within twenty miles July 2, 1864, date of act. * From that point to the east line of township 17 north, range 13 east, September 14, 1866. * From that point to the Big Bend of the Truckee River, in township 20 north, range 24 east, Nevada, October 25, 1867. From that point to Humboldt Wells, December 18, 1866. From that point to Monument Point (head of Salt Lake), January 16, 1867. From that point to Ogden, July 18, 1868.
California.....	Western Pacific.....	First twenty miles northward from San José, October 3, 1866. From that point to Sacramento, from survey in the field, which was between January 28 and December 15, 1858.
	Kansas Pacific.....	From the boundary line between Missouri and Kansas to section 17, township 11 south, range 18 east, Kansas, February 13, 1864. From that point to Fort Riley, from survey in the field, which was between February 13, 1864, and February 18, 1865. From Fort Riley to the 405th mile post (Sheridan, Kansas), March 3, 1869, date of act. From that point to Denver City, from survey in the field, beginning June 29, 1869, and ending April 25, 1870, at the 635th mile post.

* Time taken as definite location from data on file in this office, subject, however, to correction upon receipt of evidence to the contrary.

No. 9.—Table showing the time when the various railroad rights attach, &c.—Continued.

States.	Names of roads.	Dates.
Colorado.....	Denver Pacific.....	March 3, 1869, date of act.
Kansas	Central Branch Union Pacific.....	January, 1864, within the 10-mile limits, and July 2, 1864, date of act, within the 20-mile limits.
Nebraska.....	Burlington and Missouri River....	June 15, 1865.
	Sionx City and Pacific	November 9, 1866, in Nebraska, and in Iowa from survey in the field, which was between November 20 and December 7, 1866.
	Northern Pacific.....	From a junction with the Lake Superior and Mississippi Road in Minnesota to the Red River of the North, November 21, 1871. From the Red River of the North to the Missouri River in Dakota Territory, May 26, 1873. From Kalama, Washington Territory, north to Tenino, sixty-five miles, September 13, 1873. From Tenino to Tacoma, on Puget Sound, May 14, 1874. According to a decision of the Secretary of the Interior, dated March 22, 1873, the first withdrawal of lands takes effect from the acceptance of the map of general route by the department, from which time settlement is excluded from the granted sections, and the alternate reserved sections are raised to \$2.50 per acre. The first map of general route through Minnesota and a portion of Washington Territory was accepted August 13, 1870, subsequently amended in parts both in Minnesota and Washington Territory. The map of general route through Dakota, Montana, Idaho, and a portion of Washington Territory was accepted February 21, 1872. The map of general route of the branch line in Washington Territory was accepted August 15, 1873.
	Atlantic and Pacific.....	From Springfield, Mo., to the western boundary of the State, December 17, 1866. From that point to the mouth of Kingfisher Creek, in Indian Territory, December 2, 1871. From that point to the eastern boundary of New Mexico, February 7, 1872. From that point to the eastern boundary of California, March 12, 1872. From San Francisco to San Miguel, Cal., March 12, 1872. Through the county of Los Angeles and part of San Bernardino, Cal., March 12, 1872. From San Miguel Mission to the Los Angeles County line August 15, 1872. From a point in township 7 north, range 7 east, S. B. M., San Bernardino County, to the Colorado River, August 15, 1872.
	Texas Pacific	Road not yet definitely located. Lands withdrawn upon a preliminary line, withdrawal taking effect from date of receipt of the order at the district land office, which was as follows: New Mexico Territory, December 4, 1871; Arizona Territory, December 26, 1871; California, October 15, 1871.
	New Orleans, Baton Rouge and Vicksburg.	Road not yet definitely located. Lands withdrawn upon a preliminary line, taking effect from date of receipt of the order at the district offices, which was as follows: Letter of November 29, 1871, received at New Orleans December 11, 1871; letter of November 29, 1871, received at Natchitoches December 20, 1871; letter of March 27, 1873, received at New Orleans April 3, 1873.
California	Oregon Branch of the Central Pacific, formerly California and Oregon.	From Roseville (on the Central Pacific Railroad) to Salt Creek, in township 32 north, of range 5 west, September 13, 1867. From that point to north line of township 46 north, of range 5 west, August 5, 1871.

No. 9.—Table showing the time when the various railroad rights attach, &c.—Continued.

States.	Names of roads.	Dates.
California—Con'd.	Southern Pacific	First withdrawal became effective January 3, 1867, date of filing the map of general route in the General Land Office. (See Secretary's decision of April 23, 1875, in case of Alfred Queen <i>vs.</i> Southern Pacific Railroad Company.) Withdrawal for branch line, under act of March 3, 1871; became effective April 3, 1871. Right of road attaches from the dates of filing the maps of definite location in the General Land Office.
Oregon	Oregon and California	From Portland, Oreg., south to township 10 south, range 2 west, October 29, 1869. From that point to the south line of township 27 south, March 26, 1870. From that point to near the south line of township 30 south, January 7, 1871.
	Oregon Central	May 4, 1870.

No. 10.—List of railroad land grants which have lapsed by reason of non-

Name of railroad.	States in which located.	Grant by act—			Grant to—	Alternate sections within—	With indemnity within—
		Approved—	Stats.				
			Volume.	Page.			
						Miles.	Miles.
Gulf and Ship Island	Mississippi	Aug. 11, 1856	11	30	State	6	15
Coosa and Tennessee	Alabama	June 3, 1856	11	17	do	6	15
Mobile and Girard	do	June 3, 1856	11	17	do	6	15
Coosa and Chattanooga	do	June 3, 1856	11	17	do	6	15
Pensacola and Georgia	Florida	May 17, 1856	11	15	do	6	15
Florida, Atlantic and Gulf Central	do	May 17, 1856	11	15	do	6	15
North Louisiana and Texas, formerly Vicksburg, Shreveport and Texas Railroad.	Louisiana	June 3, 1856	11	18	do	6	15
New Orleans, Baton Rouge and Vicksburg.	do	Mar. 3, 1871	16	579	Company ...	20	30
Saint Louis and Iron Mountain...	Missouri	July 4, 1866	14	83	State	10	20
Port Huron and Lake Michigan, formerly Detroit and Milwaukee Railroad.	Michigan	June 3, 1856	11	21	do	6	15
Houghton and Ontonagon, formerly Marquette and Ontonagon Railroad.	do	June 3, 1856	11	21	do	6	15
		Mar. 3, 1865	13	521	do	10	20
North Wisconsin, formerly Saint Croix and Lake Superior, and branch to Bayfield.	Wisconsin	June 3, 1856	11	20	do	6	15
		May 5, 1864	13	66	do	10	20
Wisconsin Central	do	May 5, 1864	13	66	do	10	20
Saint Vincent extension Saint Paul and Pacific.	Minnesota	Mar. 3, 1857	11	195	Territory ...	6	15
		Mar. 3, 1865	13	526	State	10	20
Minnesota Western, formerly Brainerd branch Saint Paul and Pacific Railroad.†	do	July 12, 1862	12	625	do	6	15
		Mar. 3, 1865	13	526	do	10	20
Hastings and Dakota	do	July 4, 1866	14	87	do	10	20
Southern Minnesota	do	July 4, 1866	14	87	do	10	20
Oregon Central	Oregon	May 4, 1870	16	94	Company ...	20	25

* Number of acres shown by examination of the official

† Maps showing the construction of the road by the Minnesota Western Railroad Company

completion of roads within periods prescribed by acts making the grants.

Expiration of grants by original act.	Extended by act—			Expiration of grant by extending act.	Estimated quantity of lands granted.	Length of road completed before expiration of grant.	Estimated quantity of lands earned prior to expiration of grant.	Quantity certified or patented up to June 30, 1878.
	Approved—	Stats.						
		Volume.	Page.					
					Acres.	Miles.	Acres.	Acres.
Aug. 11, 1866					*652,800.00	None..	None	None.
June 3, 1866					132,480.00	None..	None	67,784.96
June 3, 1866					840,880.00	None..	None	504,145.86
June 3, 1866					150,000.00	None..	None	None.
May 17, 1866					1,568,729.87	None..	None	1,275,212.93
May 17, 1866					183,153.99	None..	None	37,583.29
June 3, 1866					610,880.00	94	100,652.70	353,212.68
Mar. 3, 1876					1,600,000.00	None..	None	None.
July 1, 1871					*100,000.00	None..	None	None.
June 3, 1866					*40,000.00	None..	None	37,467.43
June 3, 1866	June 18, 1864	13	137	June 3, 1871	} 552,515.00	20	76,800.00	437,385.00
June 3, 1871	May 20, 1868	15	252	Dec. 31, 1872				
June 3, 1866	} May 5, 1864	13	66	May 5, 1869	1,408,455.69	None..	None	843,497.56
May 5, 1869								
May 5, 1869	Apr. 9, 1874	18	28	Dec. 31, 1876	1,800,000.00	240	1,536,000.00	546,446.05
Mar. 3, 1867	Mar. 3, 1873	17	631	Dec. 3, 1873	} 2,000,000.00	140	896,000.00	780,291.75
Mar. 3, 1873	June 22, 1874	18	203	Mar. 3, 1876				
Mar. 3, 1867	Mar. 3, 1873	17	631	Dec. 3, 1873	} 1,475,000.00	73	467,200.00	537,842.42
Mar. 3, 1873	June 22, 1874	18	203	Mar. 3, 1876				
Mar. 7, 1877					*475,000.00	74	473,600.00	169,790.81
Feb. 25, 1877					450,000.00	20	128,000.00	285,403.74
May 4, 1876					1,200,000.00	47½	608,000.00	None.

records actually subject to the operation of the grants.
of Minnesota have been filed, but they have not thus far been accepted by the department.

No. 11.—Abstract of suspended cases in the public lands division of the General Land Office which have been confirmed by the board of adjudication upon equitable principles during the fiscal year ending June 30, 1878, under sections 2450-2457 United States Revised Statutes, as amended by act of Congress February 27, 1877.

Number.	States.	Class of cases.	R. and R. No.	Names of parties.	Parts of section.	Section.	Town.	Range.	Cause of suspension.	Date of confirmation.
1	Missouri.....	Homestead.....	3440	Gerusha Lantz, widow of Moses Lantz.	N. $\frac{1}{2}$ N. W. $\frac{1}{2}$, S. E. $\frac{1}{4}$ N. W. $\frac{1}{2}$, and N. W. $\frac{1}{2}$ N. E. $\frac{1}{4}$.	15	22	15	Proof not made within statutory period.	Oct. 3, 1877
2	do.....	do.....	3902	John B. Milton.....	W. $\frac{1}{2}$ S. E. $\frac{1}{4}$, N. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$, and S. E. $\frac{1}{4}$ N. E. $\frac{1}{4}$.	5	23	15	do.....	Do.
3	do.....	do.....	3555	Tyrell Woody.....	W. $\frac{1}{2}$ lots 3, 4, 5, and 6 N. E. $\frac{1}{4}$.	1	34	28	do.....	Do.
4	do.....	do.....	4032	Martin R. McGowan..	N. W. $\frac{1}{2}$ S. W. $\frac{1}{2}$.	35	30	12	do.....	Do.
5	do.....	do.....	3761	Samuel Pierce.....	N. $\frac{1}{2}$ S. E. $\frac{1}{4}$ and S. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$.	34	29	11	do.....	Do.
6	do.....	do.....	2766	Elkanah Smiley.....	S. E. $\frac{1}{4}$.	9	21	17	do.....	Do.
7	do.....	do.....	3381	John Estes.....	S. $\frac{1}{2}$ S. W. $\frac{1}{2}$.	10	33	18	do.....	Do.
8	do.....	do.....	2207	Hiram D. Hayden.....	S. $\frac{1}{2}$ lot 2 S. W. $\frac{1}{2}$.	25	29	18	do.....	Do.
9	do.....	do.....	3671	John Beckerdite.....	N. E. $\frac{1}{4}$ N. E. $\frac{1}{4}$.	19	32	20	do.....	Do.
10	do.....	do.....	3019	David Coble.....	Lot 7 N. E. $\frac{1}{4}$.	25	29	27	do.....	Do.
11	do.....	do.....	2717	Jesse Climer.....	N. W. $\frac{1}{2}$ S. W. $\frac{1}{2}$.	2	31	16	do.....	Do.
12	do.....	do.....	1914	Jacob Good.....	N. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$.	29	30	18	do.....	Do.
13	do.....	do.....	2507	James Jackson.....	W. $\frac{1}{2}$ N. W. $\frac{1}{2}$.	31	31	11	do.....	Do.
14	do.....	do.....	2141	Daniel Hoots.....	S. W. $\frac{1}{2}$ S. W. $\frac{1}{2}$ and S. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$.	9	30	14	do.....	Do.
15	do.....	do.....	3304	Absalom R. Cannefax.	N. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$.	12	30	13	do.....	Do.
16	do.....	do.....	2835	John Hifton.....	S. $\frac{1}{2}$ lot 1 and lot 2 S. W. $\frac{1}{2}$.	7	30	20	do.....	Do.
17	do.....	do.....	2741	Samuel Brashears.....	N. E. $\frac{1}{4}$ N. E. $\frac{1}{4}$.	21	33	16	do.....	Do.
18	do.....	do.....	3822	Daniel C. Patterson...	S. $\frac{1}{2}$ lot 2 N. W. $\frac{1}{2}$.	7	29	20	do.....	Do.
19	do.....	do.....	968	Lydia A. Field, late Lydia A. Neal.	S. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$.	19	25	17	Proof not made within statutory period.	Do.
20	do.....	do.....	41518	James Woodall.....	N. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$.	32	25	17	Settlement not made within statutory period.	Do.
21	do.....	Warrant location	41118	O. A. Zane.....	S. E. $\frac{1}{4}$ N. W. $\frac{1}{2}$.	7	25	10	Conflict with prior entry, subsequently canceled.	Do.
22	do.....	Cash.....	6712	Franz Henze.....	W. $\frac{1}{2}$ N. E. $\frac{1}{4}$ and N. E. $\frac{1}{4}$ N. W. $\frac{1}{4}$.	27	37	19	Land not in market at date of entry ..	Do.
23	do.....	Homestead.....	42091	John B. Clark.....	W. $\frac{1}{2}$ N. E. $\frac{1}{4}$ and N. E. $\frac{1}{4}$ N. W. $\frac{1}{4}$.	13	38	5	do.....	Do.
24	Nebraska.....	Homestead.....	3552	Rosalie C. Shreeves...	N. $\frac{1}{2}$ S. E. $\frac{1}{4}$, W. $\frac{1}{4}$ S. W. $\frac{1}{4}$, and N. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$.	9	36	21	Party not a citizen at date of final proof	Do.
25	do.....	do.....	1604	John M. Persinger.....	N. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$.	15	40	21	Portion of land not in market at date of entry.	Do.
26	do.....	do.....	4390	James H. Hull.....	N. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$.	32	13	9	Settlement not made within statutory period.	Do.
27	do.....	do.....	5549	Lewis Evarly.....	S. $\frac{1}{2}$ S. W. $\frac{1}{2}$ and E. $\frac{1}{4}$ S. W. $\frac{1}{4}$.	6	14	6	do.....	Do.
					S. $\frac{1}{2}$ S. W. $\frac{1}{2}$ N. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$, and S. W. $\frac{1}{4}$ N. W. $\frac{1}{4}$.	23	1	10	do.....	Do.
						34	3	13	do.....	Do.

[illegible]

No. 11.—Abstract of suspended cases in the public lands division of the General Land Office, &c.—Continued.

Number.	States.	Class of cases.	R. and R. No.	Names of parties.	Parts of section.	Section.	Town.	Range.	Cause of suspension.	Date of confirmation.
64	Nebraska	Homestead	396	Jonathan Frances	N. $\frac{1}{2}$ S. E. $\frac{1}{4}$	26	10	12	Proof made by guardian	Nov. 1, 1877
65	do	do	2021	Nathan Dye	S. $\frac{1}{2}$ N. E. $\frac{1}{4}$ and W. $\frac{1}{2}$ S. E. $\frac{1}{4}$	28	12	8	Settlement not made within statutory period.	Do.
66	do	do	1302	Isaac Bobier	S. $\frac{1}{2}$ S. W. $\frac{1}{4}$ N. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$ and N. W. $\frac{1}{4}$ N. W. $\frac{1}{4}$	20	31	4	Proof not made within statutory period.	Do.
67	Michigan	do	187	Jan Wedrarka	N. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$	29	14	14	do	Do.
68	do	Cash	33911	John Dell	N. $\frac{1}{2}$ N. W. $\frac{1}{4}$ and N. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$	17	9	13	Conflict with prior entry; subsequently canceled.	Do.
69	do	do	33971	Oliver J. Pattison	S. $\frac{1}{2}$ N. E. $\frac{1}{4}$ and N. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$	1	13	14	do	Do.
70	do	do	11992	h P. Bliss	N. $\frac{1}{2}$ N. E. $\frac{1}{4}$	3	26	6	Land not in market at date of entry.	Do.
71	do	Homestead	1368	James White	W. $\frac{1}{2}$ S. E. $\frac{1}{4}$ and S. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$	12	12	11	Proof not made within statutory period.	Do.
72	do	do	1167	John L. Anschutz	S. W. $\frac{1}{4}$	23	22	7	do	Do.
73	do	Cash	293	Ransom Sheldon	Lot 1	26	58	28	Entry illegal; on mineral land.	Do.
74	do	do	347	Day Jones	S. E. $\frac{1}{4}$ N. E. $\frac{1}{4}$	29	48	26	do	Do.
75	Missouri	Homestead	1991	David R. Flannery	S. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$ and S. E. $\frac{1}{4}$ N. W. $\frac{1}{4}$	12	22	3	Proof not made within statutory period.	Do.
76	do	do	4483	Winfield S. Osborn	W. $\frac{1}{2}$ S. W. $\frac{1}{4}$	2	24	9	Settlement not made within statutory period.	Do.
77	do	do	3149	John P. Blazer	S. $\frac{1}{2}$ lots 1 and 2 N. W. $\frac{1}{4}$	31	37	7	Conflict with prior entry; subsequently canceled.	Do.
78	do	do	2667	Elijah W. Green	W. $\frac{1}{2}$ lots 2 and 3 N. W. $\frac{1}{4}$ and E. $\frac{1}{2}$ lots 2 and 3 N. E. $\frac{1}{4}$	6	29	7	Proof not made within statutory period.	Do.
79	do	do	1414	Samuel Dean, guardian of Frances Dean.	W. $\frac{1}{2}$ N. E. $\frac{1}{4}$	1	29	8	do	Do.
80	do	do	3933	John Flannery	S. W. $\frac{1}{4}$	36	32	13	do	Do.
81	do	do	4226	James Tuttle	N. $\frac{1}{2}$ lot 2 N. W. $\frac{1}{4}$	30	31	11	do	Do.
82	do	do	4170	John M. Jones	N. $\frac{1}{2}$ N. E. $\frac{1}{4}$ and S. E. $\frac{1}{4}$ N. E. $\frac{1}{4}$	25	31	12	do	Do.
83	do	do	3309	Richard C. Younger	S. $\frac{1}{2}$ S. W. $\frac{1}{4}$	21	31	17	do	Do.
84	do	do	7155	Joseph J. Gilbert	E. $\frac{1}{2}$ lot 8 N. W. $\frac{1}{4}$	6	34	26	do	Do.
85	do	do	5902	Edward Styles	S. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$ and N. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$	35	38	11	do	Do.
86	do	do	4918	Hiram Potts	W. $\frac{1}{2}$ lots 8 and 9 N. W. $\frac{1}{4}$	6	39	23	do	Do.
87	do	do	5550	Mildred J. Bailey, by James E. Bailey, sen. Heirs of William A. Dinsmore.	N. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$ and N. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$	21	38	6	do	Do.
88	do	do	6583	Heirs of William A. Dinsmore.	N. $\frac{1}{2}$ lots 1 and 2 N. W. $\frac{1}{4}$	31	40	21	do	Do.
89	do	do	6994	William Taylor	N. E. $\frac{1}{4}$ N. W. $\frac{1}{4}$	25	57	18	do	Do.
90	do	do	7622	Jesse P. Parrish	S. $\frac{1}{2}$ lot 2 S. W. $\frac{1}{4}$	7	61	19	do	Do.
91	do	do	7637	Thomas Ingram	S. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$ and N. W. $\frac{1}{4}$ N. W. $\frac{1}{4}$	11	37	16	do	Do.
92	do	Cash	41976	William C. Jones	S. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$ and S. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$ Island in Mississippi River N. W. $\frac{1}{4}$	14	38	17	do	Do.
						36	48	7	Land not in market at date of entry.	Do.

33	do	Homestead	7490	John McCartney	W. 1/4 N. W. 1/4	27	39	5	Conflict with prior entry; subsequently canceled.	Do.
94	do	do	4916	William Jones	N. E. 1/4 N. W. 1/4	19	58	16	do	Do.
95	do	do	4928	William E. Robertson	S. E. 1/4 S. E. 1/4	1	38	7	do	Do.
96	Colorado	do	1381	John Smiles	S. 1/4 N. W. 1/4	24	7	69	Proof not made within statutory period.	Do.
97	do	do	20	Joseph Wieninger	N. 1/4 N. W. 1/4 S. E. 1/4 N. W. 1/4 and N. W. 1/4 N. E. 1/4	27	1	72	do	Do.
98	Louisiana	do	841	Luzine Reyer	W. 1/4 S. W. 1/4 and lots 16 and 17	2	9	10	do	Do.
99	do	do	1307	Jackson T. Hewitt	W. 1/4 N. W. 1/4	34	7	9	do	Do.
100	Dakota	do	2129	Gunder Anderson	S. E. 1/4 N. E. 1/4 and N. E. 1/4 S. E. 1/4	33	96	49	do	Do.
101	Iowa	do	2928	Harrison H. Campbell	Lots 1 and 2 or N. E. 1/4	2	99	38	do	Do.
102	do	do	6774	Henry Grundy	N. W. 1/4	28	93	40	Conflict with prior entry; subsequently canceled.	Do.
103	Minnesota	do	3344	William Plumb	W. 1/4 S. W. 1/4	24	110	10	Proof not made within statutory period.	Do.
104	do	do	786	Abraham P. Williams	S. 1/4 N. E. 1/4 N. W. 1/4 S. E. 1/4 and N. E. 1/4 S. W. 1/4	32	114	31	Residence not continuous	Do.
105	Wisconsin	do	4953	Ole Olson Notlestad	N. W. 1/4	4	14	4	Proof not made within statutory period.	Do.
106	California	Scrip K. No. 245, act 1860.	1	Frank E. Warren	S. W. 1/4 S. E. 1/4	15	20	17	Land not in market at date of entry...	Nov. 12, 1877.
107	do	Scrip K. No. 248, act 1860.	2	do	W. 1/4 S. W. 1/4	25	20	17	do	Do.
108	do	Homestead	1267	James Ann Rector, deserted wife of Bartley F. Rector.	E. 1/4 S. W. 1/4	30	13	13	An abandoned wife makes proof in her own name on her husband's entry.	Do.
109	Kansas	do	16179	Austin Perry	N. E. 1/4	10	20	5	Settlement not made within statutory period.	Do.
110	do	do	13750	Charles F. Haskins	S. W. 1/4	20	15	5	Residence not continuous	Do.
111	do	do	12450	Madison Johnson	N. 1/4 S. W. 1/4	26	20	4	Resided off the tract in error	Do.
112	do	do	7761	Almira Jenkins, deserted wife of S. R. Jenkins.	E. 1/4 S. E. 1/4 and W. 1/4 S. W. 1/4	32	11	8	An abandoned wife makes proof in her own name on her husband's entry.	Do.
113	do	do	8810	Daniel J. Miner	S. E. 1/4	20	14	4	Settlement not made within statutory period.	Do.
114	do	do	8141	Charles A. Johnson	S. 1/4 S. E. 1/4	24	16	4	do	Do.
115	do	do	7887	Jonathan Jenkins	E. 1/4 N. E. 1/4 and W. 1/4 N. W. 1/4	32	11	8	do	Do.
116	do	do	7212	William R. Hendrickson.	S. W. 1/4 S. W. 1/4, section 35; S. E. 1/4 S. E. 1/4	34	11	8	do	Do.
117	do	do	8443	Reuben S. Pettenger	N. E. 1/4 N. E. 1/4 section 3, and N. W. 1/4 N. W. 1/4	2	12	8	Proof not made within statutory period.	Do.
118	do	do	9550	Eliza Murrey, deserted wife of James R. Murrey.	N. E. 1/4 E. 1/4 and E. 1/4 S. E. 1/4	5	7	7	do	Do.
119	do	do	8556	Margaret Robert, now Margaret Daniels.	E. 1/4 N. E. 1/4 and E. 1/4 S. E. 1/4	17	8	4	An abandoned wife makes proof in her own name on her husband's entry.	Do.
120	do	do	5419	Mary J. McCulley, deserted wife of Chas. McCulley.	S. 1/4 S. W. 1/4	18	9	5	Proof not made within statutory period	Do.
	do	do			N. 1/4 N. W. 1/4	8	2	3	An abandoned wife makes proof in her own name on her husband's entry.	Do.

No. 11.—Abstract of suspended cases in the public lands division of the General Land Office, &c.—Continued.

Number.	States.	Class of cases.	R. and R. No.	Names of parties.	Parts of section.	Section.	Town.	Range.	Cause of suspension.	Date of confirmation.
121	Kansas	Homestead	4087	P. Napoleon Lord	W. $\frac{1}{4}$ S. W. $\frac{1}{4}$	3	7	2	Settlement not made within statutory period.	Nov. 12, 1877.
122	do	do	3626	Johanna Larsen	N. $\frac{1}{4}$ N. E. $\frac{1}{4}$	18	7	7	do	Do.
123	do	do	3495	Andrew C. Blakley	N. W. $\frac{1}{4}$	28	6	10	do	Do.
124	Nebraska	do	5379	Charles A. Hale	W. $\frac{1}{4}$ S. E. $\frac{1}{4}$	15			do	Do.
125	do	do	2892	Louis Christensen	N. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$ and lot 1 right bank Loup River.	22	18	17	do	Do.
126	do	do	1414	Gottfried Röhl	S. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$	30	17	11	Proof not made within statutory period.	Do.
127	do	do	174	Levi Phillips	S. $\frac{1}{4}$ S. W. $\frac{1}{4}$ N. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$ and N. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$	27	25	1	Settlement not made within statutory period.	Do.
128	Minnesota	do	8251	Horace Hill	W. $\frac{1}{4}$ S. W. $\frac{1}{4}$	4	18	6	Proof not made within statutory period.	Do.
129	do	do	7150	Edwin N. Hosmer	N. E. $\frac{1}{4}$	30	104	40	Settlement not made within statutory period.	Do.
130	Michigan	do	7424	Harvey T. Alcott	N. E. $\frac{1}{4}$ N. W. fl. $\frac{1}{4}$ and N. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$	30	109	37	do	Do.
131	do	do	6215	Lewis G. Hall	N. $\frac{1}{4}$ N. E. $\frac{1}{4}$	30	19	9	Conflict with prior entry; subsequently cancelled.	Do.
132	do	do	649	Wendelin Eseele	N. fl. $\frac{1}{4}$ N. E. $\frac{1}{4}$	5	11	12	do	Do.
133	Iowa	do	1682	Eliza Seward	E. $\frac{1}{4}$ N. E. $\frac{1}{4}$	32	97	29	Proof not made within statutory period.	Do.
134	do	do	599	Samuel Spear	E. $\frac{1}{4}$ N. E. $\frac{1}{4}$	12	85	34	Settlement not made within statutory period.	Do.
135	Missouri	do	7715	James S. Bullock	W. $\frac{1}{4}$ lot 1 N. E. $\frac{1}{4}$ E. $\frac{1}{4}$ lot 1 N. W. $\frac{1}{4}$ and lot 2 N. W. $\frac{1}{4}$	1	36	22	Conflict with swamp selection; subsequently rejected.	Do.
136	do	do	3018	Nancy A. Smith	E. $\frac{1}{4}$ S. E. $\frac{1}{4}$	9			Conflict with prior entry; subsequently cancelled.	Do.
137	do	do	2921	George Cahn	and W. $\frac{1}{4}$ S. W. $\frac{1}{4}$	10	29	10	Proof not made within statutory period.	Do.
138	Arkansas	do	2466	Andrew Falwell	S. $\frac{1}{4}$ S. E. $\frac{1}{4}$ N. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$ and S. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$	7	31	8	do	Do.
139	do	do	1877	Madison Algood	N. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$	13	9	5	Settlement not made within statutory period.	Do.
140	do	do	651 & 9164	Lucas C. Milan	S. $\frac{1}{4}$ N. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$ and N. E. $\frac{1}{4}$ N. W. $\frac{1}{4}$	23	7	11	Proof not made within statutory period.	Do.
141	do	do	649 & 9176	Calaway J. Milan	S. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$ N. W. $\frac{1}{4}$ lot 2, N. W. fl. $\frac{1}{4}$ S. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$ section 11, and N. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$	10 13 14	8	28	do	Do.
					N. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$ Lot 2 N. W. fl. $\frac{1}{4}$ and N. E. $\frac{1}{4}$ N. W. $\frac{1}{4}$	11	8	32	do	Do.

142	do	do	do	James M. Johnson	S. E. $\frac{1}{4}$ N. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$ N. W. $\frac{1}{4}$ N. W. $\frac{1}{4}$ N.	11	10	29	do	Do.
143	do	do	do	Jesse Williams	W. $\frac{1}{4}$ S. W. $\frac{1}{4}$ and S. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$	23	21	11	do	Do.
144	Oregon	Cash	do	Mesheck Tipton	S. E. $\frac{1}{4}$ N. W. $\frac{1}{4}$ and S. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$	11	26	4	Portion of land not in market at date of entry.	Jan. 21, 1878.
145	do	do	do	John G. Van Dyke	E. $\frac{1}{4}$ N. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$ and N. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$	15	38	1	Proof not made within statutory period.	Do.
146	Montana	do	do	William Ennis	W. $\frac{1}{4}$ N. W. $\frac{1}{4}$ and N. $\frac{1}{4}$ S. W. $\frac{1}{4}$	33	5	1	do	Do.
147	Minnesota	do	do	Joseph Turrell	S. E. $\frac{1}{4}$	9	127	33	do	Do.
148	do	do	do	Johannes Petterson	S. E. $\frac{1}{4}$	23	136	45	Settlement not made within statutory period.	Do.
149	do	do	do	Samuel Meberg	N. W. $\frac{1}{4}$	23				Do.
150	do	do	do	Anders Melander	Lot 5	26	134	43	do	Do.
151	do	do	do	Frederick G. Mayo	N. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$ and E. $\frac{1}{4}$ N. E. $\frac{1}{4}$	28	131	40	do	Do.
152	Wisconsin	do	do	K. S. Edwards	S. E. $\frac{1}{4}$	34	34	26	Proof not made within statutory period.	Do.
153	do	do	do	Lucas Luttin	N. $\frac{1}{4}$ S. W. $\frac{1}{4}$	26	18	2	do	Do.
154	do	do	do	William F. Krall	N. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$	13	8	1	do	Do.
155	do	do	do	Halver H. Solberg	S. $\frac{1}{4}$ N. W. $\frac{1}{4}$ and N. $\frac{1}{4}$ S. W. $\frac{1}{4}$	6	16	3	Settlement and proof not made within statutory period.	Do.
156	do	do	do	Peter C. Black	N. $\frac{1}{4}$ N. W. $\frac{1}{4}$	6	28	10	Settlement not made within statutory period.	Do.
157	do	do	do	Mads Jacobson	S. W. $\frac{1}{4}$	15	33	10	Proof not made within statutory period.	Do.
158	Iowa	A. C. scrip, No. 3142.	do	Albert Head	N. W. $\frac{1}{4}$	22	33	10	do	Do.
159	Missouri	Homestead	do	Francis A. McCary	N. E. $\frac{1}{4}$	14	94	38	Conflict with prior entry; subsequently canceled.	Do.
160	do	do	do	Edmund Buckley	S. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$	36	23	28	Proof not made within statutory period.	Do.
161	do	do	do	Rollins J. Freeman	Lot 4 and E. $\frac{1}{4}$ lots 2 and 3 N. W. $\frac{1}{4}$	2	29	12	do	Do.
162	do	do	do	John M. Woodruff	S. $\frac{1}{4}$ S. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$ and N. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$	11	26	12	do	Do.
163	do	do	do	Samuel Ledgerwood	N. $\frac{1}{4}$ N. W. $\frac{1}{4}$	23	40	4	Settlement not made within statutory period.	Do.
164	do	do	do	Lincoln Nicholas	W. $\frac{1}{4}$ S. W. $\frac{1}{4}$ and S. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$	9	35	25	Proof not made within statutory period.	Do.
165	do	do	do	Mary E. Krause, widow of John W. Krause.	S. $\frac{1}{4}$ lot 3 S. W. $\frac{1}{4}$	6	21	10	do	Do.
166	Arkansas	do	do	James K. Polk	S. $\frac{1}{4}$ S. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$ and S. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$	32	35	6	do	Do.
167	do	do	do	Daniel Parish	E. $\frac{1}{4}$ S. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$	3	2	12	Settlement not made within statutory period.	Do.
168	do	do	do	Hiram Foreman	W. $\frac{1}{4}$ S. E. $\frac{1}{4}$	23	10	13	Proof not made within statutory period.	Do.
169	do	do	do	John H. Rhoades	S. E. $\frac{1}{4}$	29	5	2	Settlement not made within statutory period.	Do.
170	Louisiana	do	do	Emile Bruhle	N. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$	9	10	13	Proof not made within statutory period.	Do.
171	Missouri	do	do	Harrison Tinker	N. $\frac{1}{4}$ N. W. $\frac{1}{4}$	31	5	11	do	Do.
172	do	do	do	Martin Biebl	S. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$	8	35	2	do	Do.
173	Washington	do	do	Charles P. Twiss	N. W. $\frac{1}{4}$ N. W. $\frac{1}{4}$	20	25	7	do	Do.
174	California	do	do	William Robinson	S. $\frac{1}{4}$ S. E. $\frac{1}{4}$	26				Jan. 22, 1878.
175	Dakota	do	do	Charles W. Finn	S. $\frac{1}{4}$ S. W. $\frac{1}{4}$	25	13	1	do	
176	Colorado	do	do	Almon Burnes	W. $\frac{1}{4}$ N. W. $\frac{1}{4}$	22	17	1	Resided off the tract in error	Do.
177	do	do	do	James B. Foote	N. E. $\frac{1}{4}$ N. E. $\frac{1}{4}$ and N. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$	21	95	49	Settlement not made within statutory period.	Do.
					N. $\frac{1}{4}$ S. E. $\frac{1}{4}$	23				
					N. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$	19	18	64	Proof not made within statutory period.	Do.
					E. $\frac{1}{4}$ N. E. $\frac{1}{4}$ and N. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$	24	18	65	do	Do.
					N. $\frac{1}{4}$ S. E. $\frac{1}{4}$	2	1	69		

No. 11.—Abstract of suspended cases in the public lands division of the General Land Office, &c.—Continued.

Number.	States.	Class of cases.	R. and R. No.	Names of parties.	Parts of section.	Section.	Town.	Range.	Cause of suspension.	Date of confirmation.
178	Colorado	Homestead	1490	Thomas Gulley	N. $\frac{1}{2}$ N. W. $\frac{1}{4}$	20	4	66	Proof not made within statutory period.	Jan. 22, 1878
179	Kansas	do	1921	Robert L. Kelso	S. E. $\frac{1}{4}$	34	21	1	Settlement not made within statutory period.	Do.
180	do	do	8211	Hedwig Agnes Fisher, wife of Frederick G. Fisher.	N. $\frac{1}{2}$ N. E. $\frac{1}{4}$	6	13	6	An abandoned wife makes proof in her own name on her husband's entry.	Do.
181	do	do	15142*	Nettie A. Hoag	W. $\frac{1}{2}$ N. E. $\frac{1}{4}$	18	12	1	Settlement not made within statutory period.	Do.
182	Nebraska	do	350	Henry Welch	S. $\frac{1}{2}$ N. W. $\frac{1}{4}$	18	18	2	Proof not made within statutory period	Do.
183	do	do	5774	John Guhlstoß	S. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$	6	11	11	do	Do.
184	do	do	9130	Jefferson Storts	S. $\frac{1}{2}$ N. E. $\frac{1}{4}$	32	14	4	Settlement not made within statutory period.	Do.
185	do	do	7157	John Hill	N. E. $\frac{1}{4}$	14	6	6	do	Do.
186	Michigan	do	1338	Charles E. Cain	N. $\frac{1}{2}$ N. W. $\frac{1}{4}$	12	11	1	do	Do.
187	do	do	2309	R. J. Richardson	N. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$ and S. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$	4	14	5	do	Do.
188	Wisconsin	do	1565	John Webel	W. $\frac{1}{2}$ N. W. $\frac{1}{4}$ and S. E. $\frac{1}{4}$ N. W. $\frac{1}{4}$	31	31	9	Settlement and proof not made within statutory period.	Do.
189	do	do	1567	Margaret Davis	S. W. $\frac{1}{4}$	26	32	9	Proof not made within statutory period	Do.
190	do	do	1589	John Olsen	N. $\frac{1}{2}$ N. W. $\frac{1}{4}$	4	31	11	do	Do.
191	do	do	1627	Albert Conrad	S. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$ and S. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$	32	32	11	do	Do.
192	do	do	1645	Johannes Nilson Braggens.	S. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$	18	31	8	Settlement not made within statutory period.	Do.
193	do	do	1666	Benjamin Demers	S. $\frac{1}{2}$ N. E. $\frac{1}{4}$ and N. $\frac{1}{2}$ S. E. $\frac{1}{4}$	24	32	11	do	Do.
194	do	do	1748	John Gavin	N. E. $\frac{1}{4}$	36	36	11	do	Do.
195	do	do	1763	Joseph Lincour	N. W. $\frac{1}{4}$	3	31	10	do	Do.
196	do	do	1990	Willard P. F. Randall	S. E. $\frac{1}{4}$	2	28	7	do	Do.
197	do	do	2106	Peter Cratsenberg	N. $\frac{1}{2}$ S. E. $\frac{1}{4}$ and S. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$	3	28	3	do	Do.
198	do	do	3458	J. H. Hartman	S. E. $\frac{1}{4}$	28	33	11	do	Do.
199	do	do	1452	John Walsh	N. $\frac{1}{2}$ S. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$	32	33	8	do	Do.
200	do	do	2209	Chester D. Taplin	N. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$	34	30	19	Proof not made within statutory period.	Do.
201	do	do	5174	Ole Peterson	S. $\frac{1}{2}$ N. E. $\frac{1}{4}$	32	27	14	do	Do.
202	do	do	5259	Gustavus Olson	N. $\frac{1}{2}$ S. E. $\frac{1}{4}$	28	24	6	Settlement not made within statutory period.	Do.
203	do	do	844	Patrick Short	N. $\frac{1}{2}$ S. E. $\frac{1}{4}$	14	24	6	do	Do.
204	Missouri	do	7603	Mathias Berg	E. $\frac{1}{2}$ S. W. $\frac{1}{4}$	8	20	5	Proof not made within statutory period.	Do.
					E. $\frac{1}{2}$ N. E. $\frac{1}{4}$	23	35	16	Conflict with prior entry; subsequently canceled.	Do.

205	do	do	do	George L. Pendleton	7691	W. $\frac{1}{2}$ S. W. $\frac{1}{4}$, N. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$, and N. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$.	29	38	20	Proof not made within statutory period	Do.
206	do	do	do	Gregor Graf	7509	N. $\frac{1}{2}$ N. E. $\frac{1}{4}$.	23	40	3	do	Do.
207	do	do	do	Wilson Prickett	7887	S. $\frac{1}{2}$ lot 2 S. W. $\frac{1}{4}$.	7				
						N. $\frac{1}{2}$ lot 2 N. W. $\frac{1}{4}$.	18	39	21		
						and E. $\frac{1}{2}$ S. E. $\frac{1}{4}$.	12	39	22	Conflict with prior entry; subsequently canceled.	Do.
208	Iowa	do	do	Peter Ekholm	3105	E. $\frac{1}{2}$ S. W. $\frac{1}{4}$ and W. $\frac{1}{2}$ S. E. $\frac{1}{4}$.	10	98	30	do	Do.
209	Arkansas	Cash	do	David S. Patton	†16923	E. $\frac{1}{2}$ N. W. $\frac{1}{4}$.	24	14	17	do	Do.
210	Louisiana	Homestead	do	Henry Hood	1413	S. $\frac{1}{2}$ S. W. $\frac{1}{4}$.	34	7	3	Proof not made within statutory period	Do.
211	Oregon	do	do	Freeling W. Sawyer	872	S. $\frac{1}{2}$ S. E. $\frac{1}{4}$, N. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$, and S. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$.	15	39	8	do	Feb. 2, 1878
212	Montana	do	do	George W. Haskins	137	Lot 8.	27				
						Lots 3 and 4.	28				
213	Utah	do	do	Alverse H. Patterson	723	Lot 1 and N. E. $\frac{1}{4}$ N. E. $\frac{1}{4}$.	33	2	1	do	Do.
214	do	do	do	Joseph Curtis	769	N. W. $\frac{1}{4}$.	21	9	2	do	Do.
215	Kansas	do	do	George M. Senor	4849	S. W. $\frac{1}{4}$.	4	9	2	do	Do.
						E. $\frac{1}{2}$ N. W. $\frac{1}{4}$ and W. $\frac{1}{2}$ N. E. $\frac{1}{4}$.	7	3	11	Settlement not made within statutory period.	Do.
216	do	do	do	James D. Kennedy	4862	S. $\frac{1}{2}$ S. W. $\frac{1}{4}$.	11				
						and N. $\frac{1}{2}$ N. W. $\frac{1}{4}$.	14				
217	do	do	do	Walter W. Bennett	8368	N. E. $\frac{1}{4}$.	23	7	13	Proof not made within statutory period	Do.
218	do	do	do	Seth Warren	6877	S. $\frac{1}{2}$ N. W. $\frac{1}{4}$ and N. $\frac{1}{2}$ S. W. $\frac{1}{4}$.	29	2	6	Settlement not made within statutory period.	Do.
219	Nebraska	do	do	James D. Maltbie	878	N. E. $\frac{1}{4}$.	27	29	5	do	Do.
220	do	do	do	Andrew N. Grau	877	S. E. $\frac{1}{4}$.	30	31	4	do	Do.
221	do	do	do	Nils H. Grau	874	N. W. $\frac{1}{4}$.	32	31	4	do	Do.
222	do	do	do	James Coughtry	751	W. $\frac{1}{2}$ N. W. $\frac{1}{4}$.	24				
						and E. $\frac{1}{2}$ N. E. $\frac{1}{4}$.	23	28	6	do	Do.
223	do	do	do	Peter Wallberg	873	S. $\frac{1}{2}$ S. W. $\frac{1}{4}$, N. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$, and S. W. $\frac{1}{4}$ N. W. $\frac{1}{4}$.	30	31	4	do	Do.
224	do	do	do	Marcus N. Graverholt	875	S. W. $\frac{1}{4}$.	29	31	4	do	Do.
225	do	do	do	Christopher C. Wamsley.	7077	N. W. $\frac{1}{4}$.	14	15	3	do	Do.
226	do	do	do	Anna B. Norine, wife of Andrew Norine.	10925	W. $\frac{1}{2}$ S. E. $\frac{1}{4}$.	32	14	3	An abandoned wife makes proof in her own name on her husband's entry.	Do.
227	do	do	do	George A. Derby	6657	N. $\frac{1}{2}$ N. E. $\frac{1}{4}$.	30	11	1	Conflict with prior entry; subsequently canceled.	Do.
228	do	do	do	Mercy A. Derby	6658	N. $\frac{1}{2}$ N. W. $\frac{1}{4}$.	30	11	1	do	Do.
229	do	do	do	John E. Kellogg	2896	N. W. $\frac{1}{4}$.	14	23	2	Settlement not made within statutory period.	Do.
230	do	do	do	Arend H. Von Seggern	2905	N. $\frac{1}{2}$ S. E. $\frac{1}{4}$.	10	20	7	Proof not made within statutory period	Do.
231	do	do	do	John F. Tiedgen	2929	S. W. $\frac{1}{4}$.	12	23	3	do	Do.
232	do	do	do	Mordica B. Joy	2943	S. E. $\frac{1}{4}$.	10	20	11	Conflict with prior entry; subsequently canceled.	Do.
233	do	do	do	Boen Arnold	3320	Lots 1 and 2.	15	1	8	do	Do.
234	do	do	do	Annie Culbertson	3343	W. $\frac{1}{2}$ N. E. $\frac{1}{4}$.	6	3	5	do	Do.
235	do	do	do	Elias William Bainter	6423	N. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$.	29				
						N. $\frac{1}{2}$ S. E. $\frac{1}{4}$ and S. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$.	30	2	17	Settlement not made within statutory period.	Do.

† Computed from Hd. 4738.

No. 11.—Abstract of suspended cases in the public-lands division of the General Land Office, &c.—Continued.

Number.	States.	Class of cases.	R. and R. No.	Names of parties.	Parts of section.	Section.	Town.	Range.	Cause of suspension.	Date of confirmation.
236	Minnesota	Cash	2803	John Henry Auer	S. $\frac{1}{2}$ S. W. $\frac{1}{4}$	14	117	25	Conflict with prior entry; subsequently canceled.	Feb. 2, 1878
237	Wisconsin	Homestead	1594	Michael McGillin	N. E. $\frac{1}{4}$ N. E. $\frac{1}{4}$	2	25	10	Proof not made within statutory period	Do.
238	Michigan	do	3153	John W. Kirkland	E. $\frac{1}{2}$ S. W. $\frac{1}{4}$ and S. $\frac{1}{2}$ N. W. $\frac{1}{4}$	36	18	14	Conflict with prior entry; subsequently canceled.	Do.
239	Iowa	do	1114	Adam Keltz	S. $\frac{1}{2}$ S. W. $\frac{1}{4}$	4	89	27	Proof not made within statutory period	Do.
240	do	do	187	A. V. Lacey	N. $\frac{1}{2}$ N. E. $\frac{1}{4}$	12	94	33	Conflict with prior entry; subsequently canceled.	Do.
241	do	do	726	Michael O'Shea	E. $\frac{1}{2}$ N. E. $\frac{1}{4}$	14	90	31	do	Do.
242	do	do	622	Thomas Peters	N. $\frac{1}{2}$ N. W. $\frac{1}{4}$ and S. E. $\frac{1}{4}$ N. W. $\frac{1}{4}$	4	93	31	do	Do.
243	Missouri	do	1649	Mildred Lay, widow of Waitzel N. Lay.	N. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$	20	36	5	Proof not made within statutory period.	Do.
244	do	do	3483	Icyphena Hopper, widow of Clemon Hopper.	S. $\frac{1}{2}$ S. W. $\frac{1}{4}$ W. $\frac{1}{2}$ N. W. $\frac{1}{4}$	10 15	22	20	do	Do.
245	Arkansas	do	607	James M. Prim	N. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$	31	10	25	do	Do.
246	do	do	634	Richard West	N. E. $\frac{1}{4}$ N. W. $\frac{1}{4}$	7	9	25	do	Do.
247	do	do	1542	James Hooper	E. $\frac{1}{2}$ S. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$ and N. N. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$	6 7	12	18	do	Do.
248	do	do	1258	Parris Muldron	S. E. $\frac{1}{4}$ N. W. $\frac{1}{4}$	15	12	24	do	Do.
249	Louisiana	do	578	Paul Green	N. $\frac{1}{2}$ S. W. $\frac{1}{4}$ and N. $\frac{1}{2}$ S. E. $\frac{1}{4}$	25	8	13	do	Do.
250	Washington	do	777	Rienzi E. Whitney	W. $\frac{1}{2}$ S. E. $\frac{1}{4}$ and E. $\frac{1}{2}$ S. W. $\frac{1}{4}$	32	35	3	Settlement not made within statutory period.	June 21, 1878
251	Oregon	do	325	Charles L. Kaler	S. $\frac{1}{2}$ S. W. $\frac{1}{4}$ N. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$ and S. W. $\frac{1}{4}$ N. W. $\frac{1}{4}$	8	5	39	Conflict with prior entry; subsequently canceled.	Do.
252	do	do	832	Owen Clark	S. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$	15			Proof not made within statutory period	Do.
253	do	do	898	Frederick W. Mitchell	N. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$ and N. $\frac{1}{2}$ N. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$	22 21	35	3	Conflict with prior entry; subsequently canceled.	Do.
254	do	do	912	S. B. Mayben	W. $\frac{1}{2}$ S. E. $\frac{1}{4}$ and S. $\frac{1}{2}$ N. E. $\frac{1}{4}$	32	36	5	Proof not made within statutory period	Do.
255	do	do	928	L. C. Romine	Frl. lot 1, N. E. $\frac{1}{4}$ N. W. $\frac{1}{4}$ and S. $\frac{1}{2}$ N. W. $\frac{1}{4}$	25	17	7	do	Do.
256	do	do	952	W. L. Johnson	N. W. $\frac{1}{4}$ N. $\frac{1}{2}$ N. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$ and N. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$	7	38	1	do	Do.
257	Nevada	do	47	Albert Perkins	S. W. $\frac{1}{4}$	31	17	25	Conflict with prior entry; subsequently canceled.	Do.
258	Utah	do	846	John M. Gerner	S. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$ and lot 5	30	12	2	Proof not made within statutory period	Do.
259	do	do	880	Walter Walker	W. $\frac{1}{2}$ N. E. $\frac{1}{4}$	20	1	6	do	Do.
260	do	do	881	Thomas H. Wright	E. $\frac{1}{2}$ N. E. $\frac{1}{4}$	20	1	6	do	Do.

261	do	William Neeley	Lots 3 and 4	30	11	2	do	Do.
262	do	Thomas Fryer	Lot 7	6	11	2	do	Do.
263	do	John Germer	S. 1 S. W. 1	32	12	2	do	Do.
264	do	Nathan C. Springer	S. E. 1	35	3	4	do	Do.
265	California	James M. Goodman	E. 1 S. E. 1	32	15	4	Conflict with prior entry; subsequently canceled.	Do.
266	do	William B. Long, by Mary E. Long, his wife.	Frl. N. 1 S. W. 1 and N. 1 S. E. 1	30	30	12	An abandoned wife makes proof on her husband's entry.	Do.
267	do	John G. Sparks	S. E. 1	33	6	1	Conflict with prior entry; subsequently canceled.	Do.
268	do	Aaron M. Turpen	Frl. S. W. 1	12	14	22	do	Do.
269	Colorado	Andrew J. Bliven	N. 1 S. E. 1 and S. E. 1 N. E. 1 and S. W. 1 N. W. 1	8	2	70	Proof not made within statutory period	Do.
270	Montana	George A. Shepherd	N. W. 1 S. E. 1 N. 1 S. W. 1 and N. E. 1 S. E. 1	26	1	3	do	Do.
271	do	Clement Villenoe	E. 1 N. W. 1 S. W. 1 N. W. 1 and N. W. 1 S. W. 1	27	5	10	do	Do.
272	Kansas	Christian Fausel	S. W. 1	34	19	4	Settlement not made within statutory period.	Do.
273	do	Gideon Brown, by Anna A. Brown, his wife.	S. E. 1 S. W. 1 S. W. 1 S. E. 1 N. E. 1 N. W. 1 and N. W. 1 N. E. 1	35	3	9	An abandoned wife makes proof on her husband's entry.	Do.
274	do	James Forbes	S. 1 S. W. 1 and N. 1 N. W. 1	12	4	17	Settlement not made within statutory period.	Do.
275	do	Emory E. Riddle	S. E. 1	13	4	15	do	Do.
276	do	Isaac Clemans	S. E. 1	20	1	14	do	Do.
277	do	Petter Boll	N. E. 1	11	19	3	do	Do.
278	do	C. A. Dahlsten	E. 1 N. E. 1	28	17	4	do	Do.
279	do	J. C. Seaton	N. W. 1	10	14	1	do	Do.
280	do	John S. Granger	N. 1 N. E. 1 and N. 1 N. W. 1	12	14	6	Proof not made within statutory period	Do.
281	do	Carl M. Wenson	E. 1 S. W. 1	34	8	6	do	Do.
282	do	J. C. Ranney	S. W. 1	11	4	1	Settlement not made within statutory period.	Do.
283	do	D. S. Griswold	S. W. 1 S. E. 1	8	6	8	Proof not made within statutory period	Do.
284	do	Louis Richa	N. E. 1	21	6	1	do	Do.
285	do	Annie Jordan	S. E. 1	17	8	4	do	Do.
286	do	James W. Dukes	N. W. 1	4	6	8	Settlement not made within statutory period.	Do.
287	do	Andrew John Johnson	N. E. 1	28	7	5	do	Do.
288	do	Thomas Watson	N. E. 1	25	10	8	Proof not made within statutory period	Do.
289	do	George W. Hartwell	N. W. 1	14	6	8	Settlement not made within statutory period.	Do.
290	Minnesota	John Johnson	N. W. 1 S. E. 1 S. 1 S. E. 1 and S. E. 1 S. W. 1	2	126	41	do	Do.
291	do	Andrew T. Clevan	N. E. 1	23	134	45	do	Do.
292	do	Giuseppe Tressoni	W. 1 N. W. 1	26	111	25	Proof not made within statutory period	Do.
293	do	Thomas Devine	S. E. 1 N. W. 1	24	111	23	do	Do.
294	do	Swen Ahl	W. 1 N. W. 1	22	114	33	Settlement not made within statutory period.	Do.

No. 11.—Abstract of suspended cases in the public-lands division of the General Land Office, &c.—Continued.

Number.	States.]	[Class of cases.	R. and R. No.	Names of parties.	Parts of sections.	Section.	Town.	Range.	Cause of suspension.	Date of confirmation.
295	Minnesota	Homestead	3518	Ole Kruteson	W. $\frac{1}{2}$ S. E. $\frac{1}{4}$ and E. $\frac{1}{2}$ S. W. $\frac{1}{4}$	28	123	36	Conflict with prior entry; subsequently canceled.	June 21, 1878
296	do	do	3533	Simon P. Matheny	E. $\frac{1}{2}$ S. W. $\frac{1}{4}$	18	119	29	do	Do.
297	do	do	3619	Erick H. Johnson	W. $\frac{1}{2}$ S. E. $\frac{1}{4}$	2	118	42	do	Do.
298	do	Cash	7372	C. A. Brown	N. W. $\frac{1}{2}$ S. E. $\frac{1}{4}$	8	107	10	Land not in market at date of entry	Do.
299	Wisconsin	Homestead	1212	William Kreuger	N. W. $\frac{1}{2}$ S. W. $\frac{1}{4}$	6	29	5	Settlement not made within statutory period.	Do.
300	do	do	108	Michael Pottkohl	N. W. $\frac{1}{2}$ S. W. $\frac{1}{4}$	21	25	24	Proof not made within statutory period	Do.
301	do	do	727	Hans Peterson	S. E. $\frac{1}{2}$ S. W. $\frac{1}{4}$	2	21	6	do	Do.
302	do	do	784	Warren Lincoln	E. $\frac{1}{2}$ N. W. $\frac{1}{4}$	11	21	10	do	Do.
303	do	do	4799	Joseph Ringel	S. E. $\frac{1}{2}$ N. W. $\frac{1}{4}$	19	21	10	do	Do.
304	do	do	5208	Francis Jordan	S. E. $\frac{1}{2}$ N. E. $\frac{1}{4}$	34	15	7	do	Do.
305	do	do	5251	Wenzel Riedl	N. W. $\frac{1}{2}$ S. W. $\frac{1}{4}$	35	11	4	Settlement not made within statutory period.	Do.
306	do	do	5402	Catherine Brennan, wife of Michael Brennan, deceased.	S. $\frac{1}{2}$ N. W. $\frac{1}{4}$ and S. W. $\frac{1}{4}$	31	20	1	do	Do.
307	do	do	5542	Edward Hoff	S. E. $\frac{1}{2}$ S. W. $\frac{1}{4}$	36	12	7	Proof not made within statutory period	Do.
308	do	do	2099	John McMullan	S. E. $\frac{1}{2}$ N. E. $\frac{1}{4}$	9	22	13	Settlement not made within statutory period.	Do.
309	do	do	2213	Benjamin Burt	N. W. $\frac{1}{2}$ S. W. $\frac{1}{4}$ fl. $\frac{1}{4}$ and S. W. $\frac{1}{4}$ N. W. fl. $\frac{1}{4}$	18	38	13	Proof not made within statutory period	Do.
310	do	do	2353	Chester Wright Haskins.	W. $\frac{1}{2}$ S. E. $\frac{1}{4}$	24	29	13	do	Do.
311	do	do	2363	Carl Schaefer	N. W. $\frac{1}{2}$ N. E. $\frac{1}{4}$ and lot 2	30	34	16	do	Do.
312	do	do	2511	Andrew Grison	S. W. $\frac{1}{2}$ S. W. $\frac{1}{4}$	10	27	12	do	Do.
313	do	do	2612	Tron Andersen Win-teroa.	E. $\frac{1}{2}$ S. E. $\frac{1}{4}$	12	37	18	Settlement not made within statutory period.	Do.
314	do	do	1442	Andrew Andersen	N. W. $\frac{1}{2}$	12	32	12	do	Do.
315	do	do	1610	Edwin Gaddis	S. E. $\frac{1}{2}$	8	31	10	Proof not made within statutory period.	Do.
316	do	do	1742	Richard W. Winches-ter.	Lots 4 and 1	1	30	10	Settlement not made within statutory period.	Do.
317	do	do	1811	Mason Morley	S. $\frac{1}{2}$ N. E. $\frac{1}{4}$	6	33	10	do	Do.
318	do	do	1825	Horace S. Noteware.	S. $\frac{1}{2}$ N. W. $\frac{1}{4}$	27	32	10	do	Do.
319	do	do	1885	John C. Kraut	N. W. $\frac{1}{2}$ and W. $\frac{1}{2}$ N. E. $\frac{1}{4}$	25	32	10	do	Do.
						24	30	7	do	Do.

320	do	Jonathan F. Roff	S. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$	2	31	10	do	Do.
321	do	Gustav C. Warner	N. E. $\frac{1}{4}$ N. W. $\frac{1}{4}$	11	20	10	do	Do.
322	do	Ingebor Andersen	S. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$	29	31	11	do	Do.
323	do	Halver Hansen	S. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$	10	32	11	do	Do.
324	do	Chris. Jorgensen	W. $\frac{1}{4}$ N. W. $\frac{1}{4}$ and N. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$	15	31	11	do	Do.
325	do	Frederick Hanson	S. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$	32	32	11	do	Do.
326	do	John D. McGillis	S. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$	31	29	8	do	Do.
327	do	Elisha Bardwell	N. E. $\frac{1}{4}$ N. E. $\frac{1}{4}$ sec. 6 and N. W. $\frac{1}{4}$ N. W. $\frac{1}{4}$	5	31	1	do	Do.
328	do	S. L. Cobb	W. $\frac{1}{4}$ N. W. $\frac{1}{4}$ and S. $\frac{1}{4}$ N. E. $\frac{1}{4}$	6	33	11	do	Do.
329	Nebraska	Peter Zeyn	S. $\frac{1}{4}$ S. E. $\frac{1}{4}$ and S. $\frac{1}{4}$ S. W. $\frac{1}{4}$	1	33	11	do	Do.
330	do	John W. Burtis	S. W. $\frac{1}{4}$	23	33	10	do	Do.
331	do	James F. Yocum	S. W. $\frac{1}{4}$	14	29	8	do	Do.
332	do	Layton Butin	S. E. $\frac{1}{4}$	36	31	1	do	Do.
333	do	James W. Gehr	N. $\frac{1}{4}$ N. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$ and N. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$	15	35	10	do	Do.
334	do	Lois E. Douglass	N. E. $\frac{1}{4}$	34	24	6	do	Do.
335	do	James H. Cutler	S. E. $\frac{1}{4}$	3	1	11	do	Do.
336	do	Louis Hoheuse	S. E. $\frac{1}{4}$	4	1	15	do	Do.
337	do	William Iler	W. $\frac{1}{4}$ N. W. fl. $\frac{1}{4}$	5	6	13	do	Do.
338	do	Jesse Woodward	and E. $\frac{1}{4}$ N. E. fl. $\frac{1}{4}$	20	6	13	do	Do.
339	do	James Hanna	E. $\frac{1}{4}$ S. E. $\frac{1}{4}$ and E. $\frac{1}{4}$ N. E. $\frac{1}{4}$	33	2	14	do	Do.
			S. $\frac{1}{4}$ S. W. $\frac{1}{4}$ and S. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$	34	1	16	do	Do.
			S. $\frac{1}{4}$ N. W. $\frac{1}{4}$ and N. $\frac{1}{4}$ S. W. $\frac{1}{4}$	26	1	16	do	Do.
			S. $\frac{1}{4}$ N. W. $\frac{1}{4}$	14	4	6	do	Do.
			S. $\frac{1}{4}$ S. W. $\frac{1}{4}$	22	6	2	do	Do.
			S. $\frac{1}{4}$ N. W. $\frac{1}{4}$ and N. $\frac{1}{4}$ S. W. $\frac{1}{4}$	26	28	6	do	Do.
			E. $\frac{1}{4}$ S. W. $\frac{1}{4}$	34	12	9	do	Do.
			Lots 8 and 9	2	16	1	do	Do.

Proof does not show continuous residence upon the land from date of entry.

Commuted from Hd. 609. Party failed to make proof.

Settlement not made within statutory period.

Party failed to make settlement within statutory period, and on account of the sickness of his wife has not resided continuously on tract since date of settlement. It also does not appear that he was residing thereon at date of making proof.

Conflict with prior entry; subsequently canceled.

Settlement not made within statutory period.

Proof not made within statutory period

No. 11.—Abstract of suspended cases in the public-lands division of the General Land Office, &c.—Continued.

Number.	States.	Class of cases.	R. and R. No.	Names of parties.	Parts of section.	Section.	Town.	Range.	Cause of suspension.	Date of confirmation.
340	Nebraska	Homestead	2378	Jochim Giese	W. $\frac{1}{2}$ N. E. $\frac{1}{4}$	10	12	8	Settlement not made within statutory period.	June 21, 1878
341	do	do	2770	Austin H. Terry	S. W. $\frac{1}{4}$	24	18	13	do	Do.
342	do	do	2930	John Machen	S. $\frac{1}{2}$ S. W. $\frac{1}{4}$	2	18	2	do	Do.
343	do	do	4801	Adam Wisner	N. E. $\frac{1}{4}$	20	9	20	Party was absent for a period of nine months by reason of the destruction of his crops during the year 1876.	Do.
344	do	do	1193	Frederick Lamb	S. W. $\frac{1}{4}$	32	13	7	Settlement not made within statutory period.	Do.
345	do	do	4844	Martin R. Beebe	N. E. $\frac{1}{4}$	34	21	3	Party absented himself under the grasshopper act for a longer period than was authorized by said act.	Do.
346	do	do	1048	William E. Benedict	W. $\frac{1}{2}$ S. W. $\frac{1}{4}$	4	19	10	Was detained by reason of sickness.	Do.
347	do	do	2752	Frederick Britzke	E. $\frac{1}{2}$ N. E. $\frac{1}{4}$ and N. $\frac{1}{2}$ N. W. $\frac{1}{4}$	22	24	2	Conflict with prior entry; subsequently canceled.	Do.
348	do	do	2966	Ferdinand Zastrow	N. $\frac{1}{2}$ S. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$ S. W. $\frac{1}{4}$ and N. E. $\frac{1}{4}$ N. W. $\frac{1}{4}$	17	24	1	Settlement not made within statutory period.	Do.
349	do	do	3038	Jacob Schwank	S. E. $\frac{1}{4}$	20	24	1	do	Do.
350	do	do	3053	John E. Osborn	N. $\frac{1}{2}$ N. E. $\frac{1}{4}$ and E. $\frac{1}{2}$ N. W. $\frac{1}{4}$	34	23	3	Conflict with prior entry; subsequently canceled.	Do.
351	do	do	3094	Jacob Gier	S. W. $\frac{1}{4}$	22	23	6	do	Do.
352	do	do	377	Nelson Sheffer	E. $\frac{1}{2}$ N. E. $\frac{1}{4}$ and N. $\frac{1}{2}$ S. E. $\frac{1}{4}$	10	12	9	Settlement not made within statutory period.	Do.
353	do	do	3464	Hiram F. Tout, by Jacob A. Tout, heir.	E. $\frac{1}{2}$ N. E. $\frac{1}{4}$	22	7	8	Proof not made within statutory period.	Do.
354	do	do	5572	James Boyle	W. $\frac{1}{2}$ S. E. $\frac{1}{4}$	30	16	9	do	Do.
355	do	do	5975	Ann Taylor, wife of Peter Taylor, deceased.	S. $\frac{1}{2}$ S. E. $\frac{1}{4}$	30	8	3	do	Do.
356	do	do	6462	Gustav Müller	N. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$ and N. E. $\frac{1}{4}$ N. W. $\frac{1}{4}$	22	12	1	do	Do.
357	do	do	6666	Christian Rolli	S. E. $\frac{1}{4}$ N. E. $\frac{1}{4}$	10	15	9	do	Do.
358	do	do	6996	Ole Thobroe	W. $\frac{1}{2}$ N. W. $\frac{1}{4}$	18	16	9	do	Do.
359	do	do	3357	J. A. Huttberg	S. $\frac{1}{2}$ S. W. $\frac{1}{4}$	12	15	7	Conflict with prior entry; subsequently canceled.	Do.
360	do	do	6532	John W. Loder	S. E. $\frac{1}{4}$	8	10	6	Settlement not made within statutory period.	Do.
361	do	do	6801	John Cowger	W. $\frac{1}{2}$ N. W. $\frac{1}{4}$	32	13	1	do	Do.

No. 12.—The cases shown upon this abstract fall in class 2 of section 2453 United States Revised Statutes, having been submitted by the Commissioner of the General Land Office, and rejected by the board of equitable adjudication, provided for under sections 2450-2453, as amended by act of Congress, February 27, 1877, during the fiscal year ending June 30, 1878.

Number.	States.	Class of cases.	R. and P. No.	Names of parties.	Parts of section.	Section.	Town.	Range.	Cause of suspension.	Date of re- jection.
1	Kansas	Commuted from homestead No. 511.	631	John F. Gedultig	S. W. $\frac{1}{4}$	26	3	16	Settlement not made within statutory period. (See decision of the board, November 1, 1877, in General Land Office.)	Nov. 1, 1877
2	Nebraska	Homestead No. 1070, commu- ted with war- rant.	114146	Peter Scheffel	W. $\frac{1}{2}$ S. E. $\frac{1}{4}$ and E. $\frac{1}{2}$ S. W. $\frac{1}{4}$	31	30	5	Proof not made within statutory pe- riod. (See decision of the board, November 1, 1877, in General Land Office.)	Do.
3	Michigan	Homestead	131	Julius Nolte	Lots 3 and 4 and S. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$ and N. W. $\frac{1}{4}$ N. W. $\frac{1}{4}$	15	47	1	do	Do.
4	do	do	452	Emory Reinelt	E. $\frac{1}{4}$ S. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$ N. W. $\frac{1}{4}$, and S. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$	22	13	4	do	Do.
5	do	do	1622	Edward O'Brien	N. E. $\frac{1}{4}$	23	21	6	Settlement not made within statutory period. (See decision of the board, November 1, 1877, in General Land Office.)	Do.
6	do	do	4608	Robert Jefferson	N. fl. $\frac{1}{4}$ S. W. $\frac{1}{4}$	6	20	8	Proof not made within statutory pe- riod. (See decision of the board, November 1, 1877, in General Land Office.)	Do.
7	Missouri	do	2944	Isaac D. Comstock	S. $\frac{1}{4}$ N. W. $\frac{1}{4}$, S. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$, and N. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$	13	30	9	Party relinquished prior entry. (See decision of the board, November 1, 1877, in General Land Office.)	Do.
8	Kansas	do	1922	Newton S. Woodford	S. $\frac{1}{4}$ N. W. $\frac{1}{4}$	4	13	12	Proof made by father. (See decision of the board, November 1, 1877, in General Land Office.)	Do.
9	Michigan	do	1814	William Raymond	N. E. $\frac{1}{4}$ N. E. $\frac{1}{4}$	30	12	2	Residence not continuous. (See deci- sion of the board, November 12, 1877, in General Land Office.)	Nov. 12, 1877
10	Minnesota	do	504	William L. McKenzie	Lots 1, 2, 3, 4, and 6	4	127	39	Proof not made within statutory pe- riod. (See decision of the board January 21, 1878, in General Land Office.)	Jan. 21, 1878
11	Wisconsin	do	5208	Francis Jordan	S. $\frac{1}{4}$ N. W. $\frac{1}{4}$	31	11	4	Settlement not made within statutory period. (See decision of the board January 21, 1878, in General Land Office.)	Do.
12	do	do	2089	Ferdinand Bohar	N. $\frac{1}{4}$ S. E. $\frac{1}{4}$	18	26	7	do	Do.

13	Iowa.....	Commuted from homestead No. 3298.	21471	Isaac Hadley	E. $\frac{1}{4}$ N. W. $\frac{1}{4}$ and W. $\frac{1}{4}$ N. E. $\frac{1}{4}$	12	98	29	do	Do.
14	Wisconsin	Homestead	730	Carl Nelson	S. W. $\frac{1}{4}$ N. E. $\frac{1}{4}$	24	31	27	Adjoining farm entry; land not in compact body. (See decision of the board, January 22, 1878, in General Land Office.)	Jan. 22, 1878
15	California.....	Cash.....	3081	William W. Moore.....	S. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$ and S. E. $\frac{1}{4}$ S. E. $\frac{1}{4}$	17	15	26	Land not subject to private entry. (See decision of the board, January 22, 1878, in General Land Office.)	Do.
16	do	do	3087	John H. Peters	S. W. $\frac{1}{4}$ S. E. $\frac{1}{4}$, E. $\frac{1}{4}$ S. W. $\frac{1}{4}$, and S. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$	22	30	26	do	Do.
17	do	do	3094	John Tuohy	E. $\frac{1}{4}$ S. W. $\frac{1}{4}$	14	20	27	do	Do.
18	Kansas	Homestead	2529	Robert Anderson.....	N. $\frac{1}{4}$ S. E. $\frac{1}{4}$	18	14	2	Settlement not made within statutory period. (See decision of the board June 21, 1878, in General Land Office.)	June 21, 1878
19	Minnesota	do	4239	Christen Haraldsen	E. $\frac{1}{4}$ S. E. $\frac{1}{4}$	14	108	31	Proof not made within statutory period. (See decision of the board, June 21, 1878, in General Land Office.)	Do.
20	Wisconsin	do	1611	John Vilett.....	W. $\frac{1}{4}$ N. E. $\frac{1}{4}$	17	31	7	Failed to reside continuously on the tract. (See decision of the board, June 21, 1878, in General Land Office.)	Do.
21	do	do	1636	Fritz Semisch	S. $\frac{1}{4}$ N. E. $\frac{1}{4}$	4	26	8	Settlement not made within statutory period. (See decision of the board, June 21, 1878, in General Land Office.)	Do.
22	do	do	1647	Christian Larsen.....	S. E. $\frac{1}{4}$	23	34	11	Failed to reside continuously on the tract. (See decision of the board, June 21, 1878, in General Land Office.)	Do.
23	do	do	2050	Charles O'Connor	Lot 3.	2			do	Do.
24	Nebraska.....	do	3088	Julius Gorman	S. $\frac{1}{4}$ N. W. $\frac{1}{4}$ and N. W. $\frac{1}{4}$ S. W. $\frac{1}{4}$ N. $\frac{1}{4}$ N. E. $\frac{1}{4}$	1	33	5	Party not a citizen at time of his death. (See decision of the board, June 21, 1878, in General Land Office.)	Do.
25	do	do	3847	Lewis Kaul, by Elizabeth Kaul, his wife.	E. $\frac{1}{4}$ N. W. $\frac{1}{4}$ and S. W. $\frac{1}{4}$ N. W. $\frac{1}{4}$	34	1	14	An abandoned wife makes proof on her husband's entry. (See decision of the board, June 21, 1878, in General Land Office.)	Do.
26	do	do	1769	Marn Johnson	S. $\frac{1}{4}$ N. W. $\frac{1}{4}$	2	13	11	Settlement not made within statutory period. (See decision of the board, June 21, 1878, in General Land Office.)	Do.
27	do	do	11837	Anna Headland.....	W. $\frac{1}{4}$ S. W. $\frac{1}{4}$	34	14	3	Failed to reside continuously on the tract. (See decision of the board, June 21, 1878, in General Land Office.)	Do.

[Commissioner's letter transmitting estimates given in the tables No. 13 to 18 inclusive.]

DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,
Washington, D. C., October 21, 1878.

SIR: In obedience to your verbal orders communicated by the chief clerk of the department, I have the honor herewith to transmit revised and reduced estimates for appropriations for the public service under the superintendence of this office for the fiscal year ending June 30, 1880.

1st. For salaries of the employes of the General Land Office, \$307,140, being an excess over the amount appropriated last year of \$86,780.

As explanatory of this estimate, and why it is an increase over the amount appropriated last year, I desire to state that there is not more than one-half enough of clerical force, nor more than one-half enough of room for the performance of the business of this bureau in a manner satisfactory to the country, yourself, or myself. The estimate only approximates the amount which should be appropriated for the purpose.

2d. For contingent expenses, maps, printing, and binding for the General Land Office; for salaries of registers and receivers of local or district land offices, depositing public moneys, and for the protection of timber on the public lands, aggregating \$828,000.

I wish to say generally of all these items that the amounts estimated for are absolutely necessary for the proper transaction of the business of the office.

Of the larger item for salaries of registers and receivers I desire to say specifically that it is in a great measure a hypothetical appropriation, and when made takes but a small sum of money out of the Treasury.

There are ninety-four land offices, each having a register and receiver, making one hundred and eighty-eight officers, to each of whom a fixed salary of \$500 is paid by law, making a total of \$94,000, and each of these officers may receive in addition to the \$500 a further sum of \$2,500, provided the fees and commissions (which the officers earn) amount to that sum at their respective offices. The additional sum of \$2,500 that each officer may receive upon the contingency above named amounts to \$470,000. All fees and commissions are by law required to be turned into the Treasury, and cannot be withdrawn to pay the officers unless provided for by law. It is possible for each officer to be entitled by existing laws to receive the full sum of \$3,000 per annum, and hence the necessity of the appropriation. If the money is not earned by the officers and turned into the Treasury, it is not drawn out by them.

I would speak specifically of one other item named, viz, incidental expenses of the local land offices, \$100,000. The reason for the increase is quite fully explained by the explanatory note following the estimate, to the effect that fees arising under sections 2238 and 2239, heretofore withheld by registers and receivers, but under recent orders turned into the Treasury, will offset this item to a large extent. The sum estimated for is the very lowest that will enable this office to make allowance for rents of offices and contingent expenses under the departmental ruling that office rent should be paid, the correctness of which decision is manifest.

In regard to the item of \$75,000 to suppress and prevent depredations upon the timber on the public lands, I have only to say that a less sum than that estimated for will not meet the requirements of the service.

3d. For compensation of surveyors general and their clerks.

In regard to this estimate, I have to say that the salaries of the surveyors general are fixed by law, and very low, and the estimate is for amounts so fixed. The estimate for clerical force is, in my opinion, absolutely necessary to enable the several surveyors general to bring up the work in their offices. Insufficient appropriation for this purpose for several years past has caused great arrearages in the work, and consequently great confusion in the offices.

4th. For contingent expenses of the offices of surveyors general.

In reference to this estimate, I do not see how it can be reduced. The fact that less has heretofore been appropriated does not prove anything with reference to present wants.

5th. For surveying public lands and private land claims, boundary lines between Territories, appraisement and sale of lands and buildings of abandoned military reservations, examination of public surveys in the field, retracing and reproducing by photolithography, or otherwise, of worn and defaced official township plats, &c.

Referring to the above-enumerated estimates, I wish to say that there is no known method of designating the exact sum that should be appropriated for public surveys. The machinery for conducting the public surveys costs as much when idle as when employed. The estimates for the offices of surveyors general amount to more than \$200,000, and no less sum than that will suffice to keep these offices in efficient working order. Under these circumstances it would seem but folly not to employ them.

The survey of the boundary lines between the Territories seems to be necessary, as does also the appropriation for defraying the expenses of selling abandoned military reservations, and the improvements thereon. In the case of several reservations, the appraisement and sale of which have been provided for by law, all action has been suspended for want of appropriation to defray the expenses. The sale of these reservations would put large sums of money into the Treasury if consummated.

Referring to the estimate for appropriation for survey of private land claims, I desire to state that the neglect on the part of the government to provide for the survey and adjudication of said claims in the territory acquired by the treaty of Guadalupe Hidalgo, and the treaty commonly known as the Gadsden purchase, has cost the government millions of acres of land and very large sums of money, and has been the immediate cause of the loss of many lives and much lawlessness. Every year's and every day's delay makes the settlement of these claims more difficult and expensive.

The treaties provided for their settlement, the courts of the United States sustain, and award to the grantees of *bona-fide* claims the quantity granted according to the laws of the nation making the grant.

Why should not the initiative be taken for settling those claims in Arizona, where nothing has been done, and the work which has already been commenced in other States and Territories in regard to these claims consummated at the earliest practicable day? I estimated for the appropriation for that purpose with that end in view.

An appropriation of money to enable the surveyors general to examine surveys in the field is necessary beyond all doubt or cavil, and the amount asked for is very small.

The importance of reproducing in whole or in part the mutilated records of this office cannot be overestimated. Age and constant use have rendered the restoration and preservation imperatively necessary.

6th. The estimate for appropriations to cover deficiencies in the years from 1868 to 1878 inclusive is, in my opinion, a proper one to be submitted.

In conclusion I would respectfully state that I have carefully examined each item asked for, and if all cannot be appropriated I am unable to say with certainty where the reduction should be made. I would, however, express the opinion that the appropriations most imperatively demanded are those that will enable this office to bring up the arrearages of work now on hand, and also enable the surveyors general to bring up their office-work. Public surveys can be better dispensed with than any other branch of the public land business.

Very respectfully, your obedient servant,

J. A. WILLIAMSON,
Commissioner.

Hon. C. SCHURZ,
Secretary of the Interior.

No. 13.—*Estimates of appropriations required for the service of the fiscal year ending June 30, 1880, by the General Land Office.*

Detailed objects of expenditure, and explanations.	Estimated amount which will be required for each detailed object of expenditure.	Total amount to be appropriated under each head of appropriation.	Amount appropriated for the current fiscal year ending June 30, 1879.
Salaries:			
Commissioner of the General Land Office (Rev. Stat., p. 75, sec. 446), and per act March 3, 1875 (18 Stat., p. 364, sec. 1).....	\$4,000 00	.....	\$4,000 00
Chief clerk, per act March 3, 1853 (10 Stat., p. 211, sec. 3), and per act March 3, 1875 (18 Stat., p. 364, sec. 1).....	*2,250 00	.....	2,000 00
NOTE.—The chief clerk is required by law to act as Commissioner in case of vacancy, or of the absence or sickness of that officer, and must be fully competent to take charge and control of the bureau at all times. He should receive the usual salary of a deputy bureau officer. It may be added that the proper duties of this office are unusually intricate, complex, and arduous, and fully deserve the salary herein estimated.			
Law clerk, per act March 3, 1875 (18 Stat., p. 364, sec. 1).....	*2,250 00	.....	2,000 00.
NOTE.—The law clerk must be thoroughly conversant with land law and practice, as well as with the usages and practice of the department, and be able to grasp and summarize at once the various questions involved in land contests and the construction of statutes, and to present the same in proper form for the consideration and action of the head of the bureau and the chiefs of divisions. The compensation estimated for is very moderate, considering the nature of the work and the qualifications required. Few attorneys competent to perform the duties could be found willing to do so for the amount named.			
Recorder (Rev. Stat., p. 75, sec. 447), and per act March 3, 1875 (18 Stat., p. 364, sec. 1).....	2,000 00	.....	2,000 00
Three principal clerks, as chiefs of divisions, of public lands, of private land claims and of surveys, at \$2,000 each (Rev. Stat., p. 75, sec. 448, p. 76, sec. 449), and per act March 3, 1875 (18 Stat., p. 364, sec. 1).....	*6,000 00	.....	5,400 00
Six additional chiefs of divisions, at \$2,000 each, per act March 3, 1853 (10 Stat., p. 211, sec. 3); per act March 3, 1875 (18 Stat., p. 364, sec. 1); and per act June 19, 1878 (Public, 135).....	*12,000 00	.....	9,000 00
NOTE.—The Recorder, in addition to his statutory duties, with the principal clerks and chiefs of divisions occupy the relation of staff officers to the Commissioner. Each has exclusive charge of a particular class of work and of the clerical force employed upon it. They must know the rules of the whole office and the laws governing the whole land system, the relations of the classes being so intermixed as frequently to involve nearly the whole of them in the consideration of a single case. No higher service is performed by the subordinate officers of any department, not excepting the Treasury, where the salaries range from twenty-seven hundred to thirty-five hundred dollars. Until this aid is given to the bureau no Commissioner can perform with satis-			

* Increase submitted.

No. 13.—*Estimates of appropriations required, &c.*—Continued.

Detailed objects of expenditure, and explanations.	Estimated amount which will be required for each detailed object of expenditure.	Total amount to be appropriated under each head of appropriation.	Amount appropriated for the current fiscal year ending June 30, 1879.
Salaries—Continued.			
faction, or justice to the people or to Congress, the responsible labors of the land service. The salaries submitted are far below the measure of desert required in return. The number of chiefs asked for corresponds to the necessary division of work in the office.			
Twenty-two clerks of class three, per act March 3, 1853 (10 Stat., p. 211, sec. 3); per act March 3, 1855 (10 Stat., p. 664, sec. 1); per act July 20, 1868 (15 Stat., p. 100, sec. 1); per act March 3, 1875 (18 Stat., p. 364, sec. 1); and per act June 19, 1878 (Public, 135)	\$35,200 00	.....	\$35,200 00
Forty clerks of class two, per act March 3, 1853 (10 Stat., p. 211, sec. 3); per act March 3, 1855 (10 Stat., p. 664, sec. 1); per act July 20, 1868 (15 Stat., p. 100, sec. 1); per act March 3, 1875 (18 Stat., p. 364, sec. 1), and June 19, 1878, (Public, 135)	56,000 00	.....	56,000 00
NOTE. —The number of clerks of classes two and three estimated for is far below the actual requirements of the work of this bureau. The duties devolved upon clerks in these grades cannot be performed by those in the lower grades, and in justice to the settlers on the public domain who have complied with the requirements of law in making their claims, and are awaiting final adjudication by this office, the number should be increased.			
One hundred and twenty-six clerks of class one, per act March 3, 1853 (10 Stat., p. 211, sec. 3); per act March 3, 1855 (10 Stat., p. 664, sec. 1); per act July 20, 1868 (15 Stat., p. 100, sec. 1); per act March 3, 1875 (18 Stat., p. 364, sec. 1); and June 19, 1878 (Public, 135)	151,200 00	.....	84,000 00
Draughtsman at \$2,000, one assistant draughtsman at \$1,600, and ten assistant draughtsmen at \$1,200 each, per act July 4, 1836 (5 Stat., p. 112, sec. 10); April 22, 1854 (10 Stat., p. 276, sec. 1); and March 3, 1875 (18 Stat., p. 364, sec. 1)	*15,600 00	.....	3,000 00
NOTE. —The estimates for draughtsmen are based upon the ascertained wants and needs of the office. Heretofore the work has been done by detailed clerks, possessing some qualifications therefor, but not always in the best manner, and usually after great and inconvenient delay. There should be ample provision for this work, and it is believed that the estimate made will be within the absolute requirements of the service.			
Four messengers at \$840 each, and ten assistant messengers at \$720 each, per act July 4, 1836 (5 Stat., p. 112, sec. 10); per act March 3, 1869 (15 Stat., p. 287, sec. 1); per act March 3, 1875 (18 Stat., p. 364, sec. 1); and June 19, 1878 (Public, 135)	*10,560 00	.....	5,040 00
Two packers at \$720 each, per act July 4, 1836 (5 Stat., p. 112, sec. 10); per act March 3, 1869 (15 Stat., p. 287, sec. 1), and March 3, 1875 (18 Stat., p. 364, sec. 1)	1,440 00	.....	1,440 00
Twelve laborers at \$720 each, per act March 3, 1869 (15 Stat., p. 287, sec. 1); per act March 3, 1869 (15 Stat., p. 291, sec. 1); per act March 3, 1875 (18 Stat., p. 364, sec. 1); and June 19, 1878 (Public, 135)	*8,640 00	.....	5,280 00
NOTE. —The estimates for service in the lower grades, messengers and laborers included, are less than the needs of the office require, but are submitted as the very lowest possible to secure proper efficiency and dispatch. The lack of help in these positions has up to this time greatly impaired the <i>morale</i> of the bureau in compelling clerks and chiefs of divisions to leave their proper work and occupy their time in performing service really pertaining to messengers and copyists. It is hoped the full number herewith estimated for may be authorized.			
	307,140 00	307,140 00	220,360 00

* Increase submitted.

Provided, That the Secretary of the Interior at his discretion shall be, and he is hereby, authorized to use any portion of the said appropriation for piece-work or by the day, month, or year, at such rate or rates as he may deem just and fair, not exceeding a salary of \$1,200.

DEPARTMENT OF THE INTERIOR,
General Land Office, September 26, 1878.

J. A. WILLIAMSON,
Commissioner.

*Estimates of appropriations required for the service of the fiscal year ending June 30, 1880,
by the General Land Office.*

Detailed objects of expenditure, and explanations.	Estimated amount which will be required for each detailed object of expenditure.	Total amount to be appropriated under each head of appropriation.	Amount appropriated for the current fiscal year ending June 30, 1879.
Contingent expenses: Stationery, diagrams, parchment paper for land patents, furniture and repairs of the same, miscellaneous items, for the actual expenses of clerks detailed to investigate fraudulent land entries, trespasses on the public lands, and cases of official misconduct, and for advertising and telegraphing, per act May 8, 1872 (17 Stat., p. 75, sec. 1); June 10, 1872 (17 Stat., p. 364, sec. 1); and June 19, 1878 (Public, sec. 199)		\$40,000 00	\$25,000 00
Map: For connected and separate United States and other maps prepared in this office, per act June 23, 1874 (18 Stat., p. 213, sec. 1,) and March 3, 1875 (18 Stat., p. 374, sec. 1)		6,000 00	
Printing, binding, &c.: Land Office reports, circulars, patents, tract books, indexes, records, field notes, abstracts, and other miscellaneous printing and binding required for the use of the office, per act May 8, 1872 (17 Stat., p. 82, sec. 2); June 23, 1874 (18 Stat., p. 204, sec. 1); and March 3, 1875 (18 Stat., p. 371, sec. 1)		20,000 00	17,509 68
For rebinding tract books in constant use, which have become damaged by age or by the injury resulting from the late fire, and transcribing the same when necessary	Submitted.	10,000 00	
NOTE.—The necessity for this appropriation is very urgent, the books being in danger of complete destruction, and no copies of them being in existence. These tract books constitute the only practicable and accessible record of original entries; and not one of them could be lost without a cost of several hundreds of dollars to replace it.			
Collecting revenue from sales of public lands: Salaries and commissions of registers and receivers of district land offices, as provided by law, not exceeding \$3,000 each, per act June 23, 1874 (18 Stat., p. 213, sec. 1); March 3, 1875 (18 Stat., p. 384, sec. 1); and June 20, 1878 (Public, sec. 229)	\$564,000 00		380,000 00
Incidental expenses of the several land offices, per act June 23, 1874 (18 Stat., p. 213, sec. 1); March 3, 1875 (18 Stat., p. 384, sec. 1); and June 20, 1878 (Public, sec. 229)	100,000 00		40,175 00
NOTE.—The amount asked for under this head is intended to cover allowances for office rent, fuel, clerk hire, &c., as well as for fees heretofore retained by the district officers collected under sections 2238 and 2239 Revised Statutes, and not properly accounted for. Under the corrected practice all such fees must be covered into the Treasury, and will stand as an offset to this appropriation, which will be disbursed by proper account and requisition, according to law; upon allowances for rent, fuel, clerk hire, &c., under the express authority of the Secretary of the Interior previously obtained. There are nearly one hundred district offices already established by law, and others are liable to be created from time to time. The amount submitted will barely suffice to cover the proper and necessary allowances.			
Expense of depositing public moneys, per act June 23, 1874 (18 Stat., p. 213, sec. 1); March 3, 1875 (18 Stat., p. 384, sec. 1); and June 20, 1878 (Public, sec. 229)	13,000 00		10,000 00
For the protection of timber on the public lands, per act March 3, 1873 (17 Stat., p. 517, sec. 1); March 3, 1875 (18 Stat., p. 384, sec. 1); and June 20, 1878 (Public, sec. 229)	75,000 00		25,000 00
		752,000 00	
Total		828,000 00	497,684 68

No. 14.—*Detailed estimate of amount for salaries and commissions of registers and receivers of the several land offices during the fiscal year ending June 30, 1880.*

States and Territories.	Land offices.	Salaries and commissions.	Total.
Missouri.....	Boonville.....	\$6,000	\$18,000
	Ironton.....	6,000	
	Springfield.....	6,000	
Alabama.....	Mobile.....	6,000	18,000
	Huntsville.....	6,000	
	Montgomery.....	6,000	
Mississippi.....	Jackson.....	6,000	6,000
Louisiana.....	New Orleans.....	6,000	18,800
	Natchitoches.....	6,000	
	Monroe.....	6,000	
Michigan.....	Detroit.....	6,000	24,000
	East Saginaw.....	6,000	
	Reed City.....	6,000	
	Marquette.....	6,000	
Arkansas.....	Dardanelle.....	6,000	24,000
	Little Rock.....	6,000	
	Camden.....	6,000	
	Harrison.....	6,000	
Florida.....	Gainesville.....	6,000	6,000
Iowa.....	Fort Des Moines.....	6,000	6,000
Nebraska.....	Norfolk.....	6,000	42,000
	Beatrice.....	6,000	
	Lincoln.....	6,000	
	Niobrara.....	6,000	
	Grand Island.....	6,000	
	Bloomington.....	6,000	
	North Platte.....	6,000	
Colorado.....	Pueblo.....	6,000	36,000
	Denver City.....	6,000	
	Fair Play.....	6,000	
	Del Norte.....	6,000	
	Central City.....	6,000	
	Lake City.....	6,000	
Utah.....	Salt Lake City.....	6,000	6,000
Wyoming.....	Cheyenne.....	6,000	12,000
	Evanston.....	6,000	
Wisconsin.....	Menasha.....	6,000	36,000
	Falls Saint Croix.....	6,000	
	Wausau.....	6,000	
	La Crosse.....	6,000	
	Bayfield.....	6,000	
	Eau Claire.....	6,000	
California.....	San Francisco.....	6,000	60,000
	Marysville.....	6,000	
	Humboldt.....	6,000	
	Stockton.....	6,000	
	Visalia.....	6,000	
	Sacramento.....	6,000	
	Shasta.....	6,000	
	Los Angeles.....	6,000	
	Susanville.....	6,000	
	Bodie.....	6,000	
Nevada.....	Carson City.....	6,000	12,000
	Eureka.....	6,000	
Washington.....	Olympia.....	6,000	24,000
	Vancouver.....	6,000	
	Walla Walla.....	6,000	
	Colfax.....	6,000	

No. 14.—*Detailed estimate of amount for salaries, &c.*—Continued.

States and Territories.	Land offices.	Salaries and commissions.	Total.
Minnesota	Taylor's Falls	\$6,000	\$54,000
	Saint Cloud	6,000	
	Duluth	6,000	
	Fergus Falls	6,000	
	Worthington	6,000	
	New Ulm	6,000	
	Benson	6,000	
	Redwood Falls	6,000	
	Crookston	6,000	
Oregon	Oregon City	6,000	30,000
	Roseburg	6,000	
	La Grande	6,000	
	Lake View	6,000	
	The Dalles	6,000	
Kansas	Topeka	6,000	48,000
	Salina	6,000	
	Independence	6,000	
	Wichita	6,000	
	Concordia	6,000	
	Kirwin	6,000	
	Larned	6,000	
	Hays City	6,000	
New Mexico	Santa Fé	6,000	12,000
	La Mesilla	6,000	
Dakota	Sionx Falls	6,000	36,000
	Springfield	6,000	
	Fargo	6,000	
	Yankton	6,000	
	Bismarck	6,000	
	Deadwood	6,000	
Idaho	Boise City	6,000	12,000
	Lewiston	6,000	
Montana	Helena	6,000	12,000
	Bozeman	6,000	
Arizona	Prescott	6,000	12,000
	Florence	6,000	
Total			564,000

J. A. WILLIAMSON,
*Commissioner.*DEPARTMENT OF THE INTERIOR,
General Land Office, September 26, 1878.

No. 15.—*Estimates of appropriations required for the service of the fiscal year ending June 30, 1880, by the General Land Office.*

Detailed objects of expenditure, and explanations.	Estimated amount which will be required for each detailed object of expenditure.	Total amount to be appropriated under each head of appropriation.	Amount appropriated for the current fiscal year ending June 30, 1879.
<i>Surveying the public lands.</i>			
At rates not exceeding \$15 per linear mile for standard lines, \$12 for township, and \$10 for section lines, except that the Commissioner of the General Land Office may allow for the survey of standard lines through lands heavily timbered, mountainous, and covered with dense undergrowth, a sum not exceeding \$18 per linear mile for standard lines, \$16 for township, and \$12 for section lines (R. S., p. 441, sec. 2395; appropriated, Stat. 1877-'78, p. 229, sec. 1).....		\$300, 000	\$300, 000
<i>For survey of timbered lands exclusively.</i>			
At rates not exceeding \$18 per linear mile for standard lines, \$16 for township, and \$12 for section lines (R. S., p. 441, sec. 2395; appropriated, Stat. 1877-'78, p. 229, sec. 1).....		50, 000	30, 000
<i>Surveying private land claims in California.</i>			
Surveying confirmed private land claims in California, at the rates per mile prescribed by law, and office expenses (R. S., p. 392, sec. 2223; appropriated, Stat. 1877-'78, p. 229, sec. 1).....		7, 500	*4, 000
<i>Surveying private land claims in New Mexico.</i>			
For the preliminary survey of <i>unconfirmed</i> and survey of <i>confirmed</i> private land claims in New Mexico, at a rate not exceeding \$16 per linear mile, and office expenses (R. S., p. 392, sec. 2223; appropriated, Stat. 1877-'78, p. 229, sec. 1).....		10, 000	*8, 000
<i>Surveying private land claims in Arizona.</i>			
For the preliminary survey of <i>unconfirmed</i> and survey of <i>confirmed</i> private land claims in Arizona, at a rate not exceeding \$16 per linear mile, and office expenses (R. S., p. 392, sec. 2223; appropriated, Stat. 1877-'78, p. 229, sec. 1).....		15, 000	*2, 000
<i>Survey of boundary between Territories of Arizona and Utah.</i>			
For the survey of the boundary line between the Territories of Arizona and Utah, being so much of the 37th parallel of north latitude as is included between the 32d and 37th meridians of west longitude from Washington Observatory, at a rate not exceeding \$75 per linear mile, estimated distance 277 miles (submitted).....		20, 775	
NOTE.—The \$20,775 is submitted for the purpose of establishing the boundary in order to define the political jurisdictions of the Territories of Arizona and Utah, so that the respective inhabitants may know to which particular Territory their rights of citizenship belong. The boundary is needed in order that the lines of public surveys projected from different bases and meridians may be closed thereon, also to enable settlers to apply to the proper land offices to secure their claims.			
<i>Survey of northern boundary of Wyoming Territory.</i>			
For the survey of the northern boundary of Wyoming Territory, being that part of the 45th parallel of north latitude included between the 27th and 34th meridians of west longitude from Washington Observatory, at a rate not exceeding \$75 per linear mile, estimated distance 334 miles (submitted).....		25, 050	
NOTE.—The \$25,050 is estimated for the establishment and marking of the northern boundary of Wyoming Territory in order to segregate the River Crow Indian Reservation in Montana from the Territory of Wyoming, the south boundary of the reservation being coincident with the north boundary of Wyoming for a distance of 180 miles. The boundary is also required to be marked in the field in order that the lines of the public surveys in Montana may be closed thereon.			

* Apportioned by Secretary of the Interior.

No. 15.—*Estimates of appropriations required, &c.*—Continued.

Detailed objects of expenditure, and explanations.	Estimated amount which will be required for each detailed object of expenditure.	Total amount to be appropriated under each head of appropriation.	Amount appropriated for the current fiscal year ending June 30, 1879.
<i>Appraisal and sale of Fort Reynolds military reservation, in Colorado, and other abandoned military reservations.</i>			
For the appraisal and sale of lands and the buildings erected by the United States and sale of the same to the highest bidder, per act of June 19, 1874 (18 Stat., p. 85), and act of February 24, 1871 (16 Stat., p. 430); submitted.....		\$6,000 00	
NOTE.—The lines of public surveys have been extended over the reservations, as provided by law, but no disposal thereof has as yet taken place for want of means necessary to cover the expenses of the appraisal, advertisement, and sale.			
<i>Examination of public surveys.</i>			
For occasional examinations of public surveys in the several surveying districts, in order to test the accuracy of the work in the field, inspect mineral deposits, coal fields, timber districts, &c., (R. S., p. 392, sec. 2223; appropriated, Stat. 1877-'78, p. 229, sec. 1)		10,000 00	*\$30,000 00
NOTE.—\$10,000 is estimated to cover expenses of examiners, to be designated by the Commissioner of the General Land Office or surveyors general, to test the fidelity of the execution of the field work; also to enable surveyors general to satisfy themselves of the correctness of surveys returned to them for their examination and approval, and to secure thereby a faithful execution of the work by deputy surveyors.			
<i>Retracing and reproduction by photolithography of worn and defaced official township plats.</i>			
To enable the Commissioner of the General Land Office to continue to reproduce worn and defaced official plats of surveys now on file and constituting a part of the records of said office (appropriated, Stat. 1877-'78, p. 229, sec. 1) ..		15,000 00	10,000 00
NOTE.—The sum of \$15,000 is required to prevent a total obliteration of designations on official township plats, defaced and mutilated by constant use during a period of eighty years, thus rendering them unreliable in furnishing certified copies under the provisions of an act of Congress approved July 2, 1864 (13 Stat., p. 375, sec. 461).			
<i>Recovery of an iron monument from the Colorado River of the West.</i>			
For recovering and restoring in the proper place one of the iron monuments marking the boundary between the States of California and Nevada; submitted.....		205 28	
NOTE.—\$205.28 is submitted to pay W. H. Sailsbury for his personal services, hire and board of Indians, and hire of team in removing from the Colorado River a large iron monument which by an overflow of the river was undermined and washed away, and replacing the same on the proper boundary line, per itemized bill, supported by his affidavit and corroborated by statement of Capt. J. J. Van Horn, Eighth Infantry, commanding Camp Mojave, Arizona Territory. The service of Mr. Sailsbury having been recognized by this office as of importance to the government, and there being no funds applicable to payment therefor, this sum is submitted for the purpose.			
Total		459,530 28	

* Apportioned by Secretary of Interior.

J. A. WILLIAMSON,
Commissioner.DEPARTMENT OF THE INTERIOR,
General Land Office, September 26, 1878.

No. 16.—*Estimates of appropriations required for the service of the fiscal year ending June 30, 1880, by the General Land Office.*

Detailed objects of expenditure, and explanations.	Estimated amount which will be required for each detailed object of expenditure.	Total amount to be appropriated under each head of appropriation.	Amount appropriated for the current fiscal year ending June 30, 1879.
PUBLIC LANDS.			
<i>Office of surveyor general of Louisiana.</i>			
Salaries:			
Surveyor general, per act June 19, 1878 (R. S., p. 390, sec. 2208; Stat. 1877-'78, p. 201, sec. 1)	\$1, 800 00		
Clerks in his office (R. S., p. 393, sec. 2226; appropriated, Stat. 1877-'78, p. 201, sec. 1)	18, 800 00	\$20, 600 00	\$5, 800 00
NOTE.—The \$18,800 is estimated for compensation of clerk hire, consisting of three regular clerks and draughtsmen, calling for \$4,800, and fourteen \$1,000 clerks, to bring up the arrears in office work of many years' standing, viz, to prepare duplicate patent plats of confirmed private land claims, of which there are about six thousand entitled to patents, and which cannot be patented until such plats are made; also, to transcribe field notes of surveys of about seven hundred and eighty townships, for a long while in arrears, and requiring one month of time to copy the notes of six townships by one clerk. Very limited appropriations for office work in former years caused so extensive arrears.			
<i>Office of surveyor general of Florida.</i>			
Salaries:			
Surveyor general, per act June 19, 1878 (R. S., p. 390, sec. 2208; Stat. 1877-'78, p. 201, sec. 1)	1, 800 00		
Clerks in his office (R. S., p. 393, sec. 2226; appropriated, Stat. 1877-'78, p. 201, sec. 1)	4, 200 00	6, 000 00	3, 800 00
NOTE.—The \$4,200 for clerk hire is submitted, it being actually required to transact the current work, and to bring up the arrears in office work retarded by former inadequate appropriations for the same. The arrears consist of 163 townships of descriptive notes of surveys for registers' offices, under diagrams to original field notes and original township plats, and the completion of the condensed history of the private land claims of volume 4.			
<i>Office of surveyor general of Minnesota.</i>			
Salaries:			
Surveyor general, per act June 19, 1878 (R. S., p. 390, sec. 2208; Stat. 1877-'78, p. 201, sec. 1)	2, 000 00		
Clerks in his office (R. S., p. 393, sec. 2226; appropriated, Stat. 1877-'78, p. 201, sec. 1)	8, 500 00	10, 500 00	7, 000 00
NOTE.—The \$8,500 is estimated for seven clerks, to enable the surveyor general to employ them to attend properly to current office work, as well as to the bringing up of the work remaining in arrears on account of heretofore restricted appropriations for the purpose.			
<i>Office of surveyor general of Dakota.</i>			
Salaries:			
Surveyor general, per act June 19, 1878 (R. S., p. 390, sec. 2208; Stat. 1877-'78, p. 201, sec. 1)	2, 000 00		
Clerks in his office (R. S., p. 393, sec. 2226; appropriated, Stat. 1877-'78, p. 201, sec. 1)	6, 500 00	8, 500 00	6, 500 00
NOTE.—The sum of \$6,500 is estimated for compensation of five employes in the surveyor general's office, consisting of a chief clerk, two draughtsmen, and two transcribing clerks, actually necessary to keep pace with the field work and avoid any arrears in the office work.			
<i>Office of surveyor general of Colorado.</i>			
Salaries:			
Surveyor general, per act June 19, 1878 (R. S., p. 391, sec. 2210; Stat. 1877-'78, p. 201, sec. 1)	2, 500 00		
Clerks in his office (R. S., p. 393, sec. 2226; appropriated, Stat. 1877-'78, p. 201, sec. 1)	7, 500 00	10, 000 00	6, 000 00
NOTE.—The \$7,500 is estimated for the compensation of five clerks and draughtsmen in the surveyor general's office to attend to the office work consequent on surveys of public lands and mineral surveys, which latter are sensibly increasing in Colorado, and involve considerable labor in the preparation of the requisite office work. Arrears of four years are reported by the surveyor general; from the necessity of binding the field notes of surveys, and the fact that the appropriation for the current year has been reduced to less than one-half the amount estimated, the present estimate will be actually needed for the service.			

No. 16.—*Estimates of appropriations required, &c.*—Continued.

Detailed objects of expenditure, and explanations.	Estimated amount which will be required for each detailed object of expenditure.	Total amount to be appropriated under each head of appropriation.	Amount appropriated for the current fiscal year ending June 30, 1879.
PUBLIC LANDS—Continued.			
<i>Office of surveyor general of New Mexico.</i>			
Salaries:			
Surveyor general, per act June 19, 1878 (R. S., p. 391, sec. 2210; Stat. 1877-'78, p. 201, sec. 1)	\$2, 500 00		
Clerks in his office (R. S., p. 393, sec. 2226; appropriated, Stat. 1877-'78, p. 201, sec. 1)	12, 000 00	\$14, 500 00	\$8, 500 00
NOTE.—The \$12,000 is submitted for compensation of chief clerk and translator of Spanish language in the adjudication of private land claims in New Mexico, \$2,000 per annum, two draughtsmen at \$1,500 each, and five clerks at \$1,400 each. This force is deemed necessary in view of the diminished appropriation for the like service of the current fiscal year, and also of the arrears existing in the preparation of diagrams of private land claims for the registers, showing the surveying limits of the same.			
<i>Office of surveyor general of California.</i>			
Salaries:			
Surveyor general, per act June 19, 1878 (R. S., p. 391, sec. 2210; Stat. 1877-'78, p. 201, sec. 1)	2, 750 00		
Clerks in his office (R. S., p. 393, sec. 2226; appropriated, Stat. 1877-'78, p. 201, sec. 1)	27, 000 00	29, 750 00	13, 750 00
NOTE.—The \$27,000 estimated for clerk hire in the office of surveyor general of California is to enable him to successfully cope with a very diversified office work called for by numerous acts of Congress. The maximum allowance by the organic law of \$11,000 per annum, having been found inadequate for several years past, appropriations were made of larger sums for the service, but not sufficient for bringing up the great arrears in the preparation of descriptive notes for the local land officers, as required by law.			
<i>Office of surveyor general of Idaho.</i>			
Salaries:			
Surveyor general, per act June 19, 1878 (R. S., p. 391, sec. 2210; Stat. 1877-'78, p. 201, sec. 1)	2, 500 00		
Clerks in his office (R. S., p. 393, sec. 2226; appropriated, Stat. 1877-'78, p. 201, sec. 1)	4, 000 00	6, 500 00	5, 000 00
NOTE.—The \$4,000 estimated for the compensation of clerks in the surveyor general's office covers scarcely the pay of three clerks for the whole fiscal year, the third clerk receiving \$700 for a part of the year.			
<i>Office of surveyor general of Nevada.</i>			
Salaries:			
Surveyor general, per act June 19, 1878 (R. S., p. 391, sec. 2210; Stat. 1877-'78, p. 201, sec. 1)	2, 500 00		
Clerks in his office (R. S., p. 393, sec. 2226; appropriated, Stat. 1877-'78, p. 201, sec. 1)	6, 500 00	9, 000 00	5, 500 00
NOTE.—The \$6,500 is estimated for clerk hire in the office of surveyor general of Nevada, to cover the compensation of clerks and draughtsman, to attend to the service of the pressing public concerns necessitated by the surveys of the agricultural, mineral, and other surveys; the extended mineral-land surveys demanding considerable labor in order to expedite the returns of numerous surveys.			
<i>Office of surveyor general of Oregon.</i>			
Salaries:			
Surveyor general, per act June 19, 1878 (R. S., p. 390, sec. 2209; Stat. 1877-'78, p. 201, sec. 1)	2, 500 00		
Clerks in his office (R. S., p. 393, sec. 2226; appropriated, Stat. 1877-'78, p. 201, sec. 1)	7, 000 00	9, 500 00	7, 000 00
NOTE.—The \$7,000 is submitted for the compensation of five clerks in the surveyor general's office, at usual rates per annum, actually needed to attend to the current official business, and to bring up the accumulated arrears in office work since 1862, especially in regard to the swamp-land business, and the transcription of donation claim field notes of survey, the original being in dilapidated condition.			

No. 16.—*Estimates of appropriations required, &c.*—Continued.

Detailed objects of expenditure, and explanations.	Estimated amount which will be required for each detailed object of expenditure.	Total amount to be appropriated under each head of appropriation.	Amount appropriated for the current fiscal year ending June 30, 1879.
PUBLIC LANDS—Continued.			
<i>Office of surveyor general of Washington.</i>			
Salaries:			
Surveyor general, per act June 19, 1878 (R. S., p. 390, sec. 2209; Stat., 1877-'78, p. 201, sec. 1).....	\$2,500 00		
Clerks in his office (R. S., p. 393, sec. 2226; appropriated, Stat., 1877-'78, p. 201, sec. 1).....	6,500 00	\$9,000 00	\$6,500 00
NOTE.—The \$6,500 are submitted for the compensation of clerks in the office of surveyor general of Washington Territory, required for the purpose, not only to expedite the current office work, but to bring up considerable arrears in the transcription of the field notes of former surveys of the public lands and donation claims, and recording the same as required by law; the accumulation of this kind of work having taken place during ten years in consequence of insufficient means provided for that purpose. As the original field notes are in a very dilapidated condition, further delay in transcribing them in proper books will cause great loss, and embarrass not only the public interests but those of individual owners of land.			
<i>Office of surveyor general of Nebraska and Iowa.</i>			
Salaries:			
Surveyor general, per act June 19, 1878 (R. S., p. 390, sec. 2208; Stat., 1877-'78, p. 201, sec. 1).....	2,000 00		
Clerks in his office (R. S., p. 393, sec. 2226, appropriated, Stat., 1877-'78, p. 201, sec. 1).....	6,300 00	8,300 00	5,000 00
NOTE.—The \$6,300 estimated for clerk hire is to cover the pay of five clerks actually needed for the transaction of the ordinary business of the office and which amount is allowed by law.			
<i>Office of surveyor general of Montana.</i>			
Salaries:			
Surveyor-general, per act June 19, 1878 (R. S., p. 391, sec. 2210; Stat., 1877-'78, p. 201, sec. 1).....	2,750 00		
Clerks in his office (R. S., p. 393, sec. 2226; appropriated, Stat., 1877-'78, p. 201, sec. 1).....	4,800 00	7,550 00	5,750 00
NOTE.—The \$4,800 is estimated for the pay of clerks in the surveyor general's office to transact the official business consequent on the survey of agricultural and mineral lands in Montana; especially the latter surveys, being on an increase, will demand constant work in the examination of complicated claims, protraction of numerous plats, recording the same, transcribing field notes and other duties devolving on the clerks too numerous to state.			
<i>Office of surveyor general of Utah.</i>			
Salaries:			
Surveyor general, per act June 19, 1878 (R. S., p. 391, sec. 2210; Stat., 1877-'78, p. 201, sec. 1).....	2,750 00		
Clerks in his office (R. S., p. 393, sec. 2226; appropriated, Stat., 1877-'78, p. 201, sec. 1).....	7,000 00	9,750 00	5,750 00
NOTE.—The \$7,000 is submitted for the compensation of clerks in the office of surveyor general of Utah, indispensably needed to attend to extensive surveys of mineral claims, preparation of maps and field notes of the twenty-nine mining districts, and to transact the usual regular business in the office which will have been delayed on account of small appropriation made for the service during the present fiscal year.			
<i>Office of surveyor general of Wyoming.</i>			
Salaries:			
Surveyor general, per act June 19, 1878 (R. S., p. 391, sec. 2210; Stat., 1877-'78, p. 201, sec. 1).....	2,750 00		
Clerks in his office (R. S., p. 393, sec. 2226; appropriated, Stat., 1877-'78, p. 201, sec. 1).....	7,500 00	10,250 00	6,250 00
NOTE.—The \$7,500 is submitted for compensation of four clerks in the office of surveyor general of Wyoming Territory required to transact the official business devolving on it and to bring up the arrears consisting of the preparation of descriptive lists of corner boundaries of public lands, quality of soil, and timber of 118 townships, 236 lists for the local land offices and for the record in the surveyor general's office.			

Estimate of appropriations required, &c.—Continued.

Detailed objects of expenditure, and explanations.	Estimated amount which will be required for each detailed object of expenditure.	Total amount to be appropriated under each head of appropriation.	Amount appropriated for the current fiscal year ending June 30, 1879.
PUBLIC LANDS—Continued.			
<i>Office of surveyor general of Colorado.</i>			
Contingent expenses:			
Rent of office for surveyor general, fuel, books, stationery, and other incidental expenses (R. S., p. 393, sec. 227; appropriated, Stat. 1877-'78, p. 228, sec. 1)		\$3, 000	\$1, 500
<i>Office of surveyor general of New Mexico.</i>			
Contingent expenses:			
Rent of office for surveyor general, fuel, books, stationery, and other incidental expenses (R. S., p. 393, sec. 2227; appropriated, Stat. 1877-'78, p. 228, sec. 1)		4, 500	1, 500
NOTE.—The \$4,500 estimated for incidental expenses are to cover a fire-proof safe and renewal of furniture dilapidated by wear and tear of twenty years use thereof, &c.			
<i>Office of surveyor general of California.</i>			
Contingent expenses:			
Fuel, books, stationery, fire-proof iron safe, pay of messenger, and other incidental expenses (R. S., p. 393, sec. 2227; appropriated, Stat. 1877-'78, p. 228, sec. 1)		4, 800	3, 000
NOTE.—The \$4,800 submitted for incidental expenses of the office is necessary to meet the pay of messenger, \$900 per annum, and other expenses, which in consequence of the reduced appropriation for the present fiscal year will demand entire supply of stationery, &c., for the year, and to purchase a large fire-proof safe, furniture, &c., to replace old and worthless safes and furniture.			
<i>Office of surveyor general of Idaho.</i>			
Contingent expenses:			
Rent of office for surveyor general, fuel, books, stationery, and other incidental expenses (R. S., p. 393, sec. 2227; appropriated, Stat. 1877-'78, p. 228, sec. 1)		2, 500	1, 500
NOTE.—The \$2,500 submitted for incidental expenses of the office, goes in payment of a messenger, \$600 per annum, and rent of the surveyor general's office, leaving the balance for stationery and other incidental expenses.			
<i>Office of surveyor general of Nevada.</i>			
Contingent expenses:			
Rent of office for surveyor-general, fuel, books, stationery, and other incidental expenses (R. S., p. 393, sec. 2227; appropriated, Stat. 1877-'78, p. 228, sec. 1)		4, 500	1, 500
NOTE.—The \$4,500 here submitted for incidental expenses of the office of surveyor general are called for to meet the payment of \$1,200 for the rent of the office, compensation of messenger, \$700, and sundry other expenses actually needed for the efficient discharge of duties devolved on the surveyor general of Nevada and to supply furniture destroyed by fire.			
<i>Office of surveyor general of Oregon.</i>			
Contingent expenses:			
Fuel, books, stationery, pay of messenger, and other incidental expenses (R. S., p. 393, sec. 2227; appropriated, Stat. 1877-'78, p. 228, sec. 1)		2, 500	1, 500
<i>Office of surveyor general of Washington.</i>			
Contingent expenses:			
Rent of office for surveyor general, fuel, books, stationery and other incidental expenses (R. S., p. 393, sec. 2227; appropriated, Stat. 1877-'78, p. 228, sec. 1)		3, 000	1, 500

Estimate of appropriations required, &c.—Continued.

Detailed objects of expenditure, and explanations.	Estimated amount which will be required for each detailed object of expenditure.	Total amount to be appropriated under each head of appropriation.	Amount appropriated for the current fiscal year ending June 30, 1879.
PUBLIC LANDS—Continued.			
<i>Office of surveyor general of Nebraska and Iowa.</i>			
Contingent expenses:			
Rent of office for surveyor general, fuel, books, stationery and other incidental expenses (R. S., p. 393, sec. 2227; appropriated, Stat. 1877-'78, p. 228, sec. 1)		\$2, 500	\$1, 500
NOTE.—The \$2,500 submitted for incidental expenses is to cover binding of the original field notes of surveys of past years, pay of messenger, and rent of the office, &c.			
<i>Office of surveyor general of Montana.</i>			
Contingent expenses:			
Rent of office for surveyor general, fuel, books, stationery, and other incidental expenses (R. S. p. 393, sec. 2227; appropriated, Stat. 1877-'78, p. 228, sec. 1)		3, 500	1, 500
NOTE.—The \$3,500 is submitted for binding the original field notes of surveys, backing with cloth township plats, additional furniture, pay of messenger, and rent of office. All these are much needed and will absorb the amount.			
<i>Office surveyor general of Utah.</i>			
Contingent expenses:			
Rent of office for surveyor general, fuel, books, stationery and other incidental expenses (R. S. p. 393, sec. 2227; appropriated, Stat. 1877-'78, p. 228, sec. 1)		2, 500	1, 500
<i>Office of surveyor general of Wyoming.</i>			
Contingent expenses:			
Rent of office for surveyor general, fuel, books, stationery and other incidental expenses, (R. S., p. 393, sec. 2227; appropriated, Stat. 1877-'78, p. 228, sec. 1)		2, 500	1, 500
<i>Office of surveyor general of Arizona.</i>			
Contingent expenses:			
Rent of office for surveyor general, fuel, books, stationery, iron fire-proof safe and other incidental expenses (R. S., p. 393, sec. 2227; appropriated, Stat. 1877-'78, p. 228, sec. 1)		3, 500	1, 500
NOTE.—The \$3,500 is submitted for rent, and incidental expenses of office of surveyor general and for the purchase of a large iron fire-proof safe.			
Total		47, 500	

J. A. WILLIAMSON, *Commissioner.*DEPARTMENT OF THE INTERIOR,
General Land Office, September 26, 1878.

No. 17—Statement of claims against the United States the accounts for which have been submitted to the First Comptroller of the Treasury in accordance with section 4 of the act of Congress entitled "An act making appropriations to supply deficiencies for the fiscal year ending June 30, 1878, and prior years, and for those heretofore treated as permanent, for reappropriations, and for other purposes," approved June 14, 1878.

DEFICIENCIES IN THE APPROPRIATIONS FOR SALARIES OF CLERKS AND CONTINGENT EXPENSES FOR OFFICES OF SURVEYORS GENERAL.

SALARIES.

Date of report.	Number of General Land Office report.	Name of payee.	Surveying district.	For what incurred.	Statement of account.			Fiscal year within which deficiency occurred.	Remarks.
					Amount of account.	Amount paid.	Amount due (deficiency).		
July 11, 1878	32320	John R. Farrell	Arizona	Chief clerk	\$607 83	\$129 66	\$478 17	1878	Account on file in the Treasury Department.
		J. A. Robinson	California	do	625 00		625 00	1878	Account transmitted herewith.
		J. H. Wildes	do	Chief draughtsman	575 00		575 00	1878	Do.
		S. N. Bliven	do	Clerk of accounts	500 00		500 00	1878	Do.
		R. C. Hopkins	do	Keeper of archives	500 00		500 00	1878	Do.
		J. K. Carter	do	Ranch clerk	450 00		450 00	1878	Do.
		D. T. O'Brien	do	Clerk	69 23		69 23	1878	Do.
		Miss J. B. Gagan	do	do	135 16		135 16	1878	Do.
		H. S. Smith	do	do	337 26		337 26	1878	Do.
		Mrs. F. J. Page	do	do	251 76		251 76	1878	Do.
		Sallie E. Hosmer	do	do	241 90		241 90	1878	Do.
		Ellis Edwards	do	Mineral clerk	222 48		222 48	1878	Do.
		Theodore Keichert	do	do	98 90		98 90	1878	Do.
		Total					4,484 86		

No. 17.—Statement of claims against the United States the accounts for which have been submitted to the First Comptroller of the Treasury, &c.—Continued.

CONTINGENT EXPENSES.

Date of report.	Number of General Land Office Report.	Name of payee.	Surveying district.	For what incurred.	Statement of account.			Fiscal year within which deficiency occurred.	Remarks.
					Amount of account.	Amount paid.	Amount due (deficiency).		
July 6, 1878	32279	Wells, Fargo & Co	Colorado	Rent of office	\$125 00	\$82 29	\$42 71	1878	Account on file in the Treasury Department.
Aug. 6, 1878	32460	George Chambers	California	Messenger	225 00	111 66	113 34	1878	Do.
Oct. 16, 1878	32763	Fr'd Salomon	Utah	Stationery, &c	180 61	154 56	26 65	1878	Do.
		L. F. Cartee	Idaho	Expenses of investigation	299 94	.....	299 94	1869	Account transmitted herewith.
		Dutton & Withington	California	Stationery	29 45	.....	29 45	1878	Do.
		J. L. Rice & Co	do	Printing	18 00	.....	18 00	1878	Do.
		Storm & Co	do	Kindling wood	5 00	.....	5 00	1878	Do.
		Fred'k MacCrellish & Co	do	Newspaper subscription	4 50	.....	4 50	1878	Do.
		A. L. Bancroft & Co	do	Stationery	308 75	.....	308 75	1878	Do.
		James Coey	do	Rent of post-office box	13 20	.....	13 20	1878	Do.
		W. Harris & Bro	do	Keys, &c	4 50	.....	5 50	1878	
		A. L. Bancroft & Co	Nevada	Stationery	68 75	.....	68 75	1878	
				Total . . . . .	.....	.....	935 19		

Deficiencies arising under surveying contracts.

DEFICIENCIES, THE ACCOUNTS FOR WHICH ARE NOW ON FILE IN THE TREASURY DEPARTMENT.

Date of General Re- port.	Number of Gene- ral Land Office Report.	Names of deputy surveyors.	Surveying district.	Date of con- tract.	Statement of accounts under contract.			Fiscal year within which deficiency occurred.	Remarks.
					Amount of work returned.	Amount paid.	Amount due (defi- ciency).		
Apr. 29, 1872	22533	Solomon W. Foreman	Arizona	Aug. 7, 1871	\$5,075 11	\$5,000 00	\$75 11	1872	
Apr. 29, 1872	22546	Joseph J. Cloud	California	Apr. 6, 1871	69 39	60 00	9 39	1872	
Mar. 29, 1872	22336 }	William E. Smith	Oregon	May 24, 1871	4,070 55	4,000 00	70 55	1872	
Jan. 3, 1873	23343 }		do	Feb. 26, 1873	2,705 52	2,442 00	263 52	1873	
Aug. 28, 1874	26401	S. Corwin and J. C. Handley	Arizona	May 13, 1873	5,045 94	5,000 00	45 94	1874	
Feb. 5, 1874	22551	Theodore F. White	Oregon	June 21, 1873	4,065 86	4,000 00	65 86	1874	
Jan. 22, 1874	25470	Jasper W. Wilkins	do	July 1, 1873	4,255 83	4,200 00	55 83	1874	
Jan. 22, 1874	25471	Jasen Owen	do	July 9, 1873	2,881 54	2,700 00	181 54	1874	
May 28, 1874	26006	John D. Crawford	do	July 14, 1873	5,012 13	5,000 00	12 13	1874	
Mar. 27, 1874	25671 }	William H. Byars	do	July 15, 1873	4,284 11	4,204 00	80 11	1874	
May 5, 1874	25963 }		do	Sept. 23, 1874	5,081 84	5,000 00	81 84	1875	
Aug. 15, 1874	26378 }	L. F. Bannin and N. O. Walden	Arizona	July 6, 1874	5,015 12	5,000 00	15 12	1875	
Nov. 7, 1874	26833 }	Theodore F. White	Oregon	June 25, 1875	8,067 53	8,000 00	67 53	1876	
May 14, 1875	27756	J. H. Evans and J. G. Gray	do	Dec. 6, 1875	4,362 57	4,149 30	213 27	1876	
Nov. 18, 1874	26870	Theodore F. White	California	June 10, 1875	12,303 78	10,098 67	2,205 11	1876	
Feb. 15, 1876	29034 }	do	Florida	Dec. 23, 1875	7,802 63	7,500 00	302 63	1876	
May 2, 1876	29408 }		Louisiana	July 17, 1875	287 65	230 15	57 50	1876	
Sept. 30, 1876	29892 }	S. W. Brunt	New Mexico	Sept. 27, 1876	6,604 45	6,500 00	104 45	1877	
Jan. 17, 1876	29497 }	John A. Henderson	do	Apr. 15, 1876	10,372 83	9,900 00	472 83	1876	
Aug. 10, 1876	29817 }		Arizona	Dec. 7, 1876	4,613 54	4,500 00	113 54	1877	
Aug. 25, 1876	29841 }	Pierre A. Thibodeaux	Nevada	Nov. 11, 1876	5,256 31	5,000 00	256 31	1877	
Dec. 19, 1876	30187 }	William H. McBroom	Arizona	July 17, 1877	5,071 57	5,000 00	71 57	1878	
Jan. 3, 1877	30426 }	Sawyer and McBroom	do	Sept. 20, 1877	3,913 24	3,850 00	63 24	1878	
Mar. 3, 1877	30802 }	Theodore F. White	Nevada	May 27, 1878	1,616 02	1,500 00	116 02	1878	
Apr. 17, 1877	30741	G. W. Garside							
Nov. 22, 1876	30151 }	Theodore F. White and John L. Harris							
Jan. 20, 1877	30417 }	do							
Apr. 28, 1877	30791 }	W. N. McGill							
June 16, 1877	30871 }								
Apr. 27, 1877	30786 }								
July 9, 1877	31026 }								
Mar. 23, 1878	31914								
Apr. 29, 1878	32099								
Oct. 12, 1878	32742								

Deficiencies arising under surveying contracts—Continued.

DEFICIENCIES, THE ACCOUNTS FOR WHICH ARE HEREWITH TRANSMITTED.

Date of General Land Office Report.	Number of General Land Office Report.	Names of deputy surveyors.	Surveying district.	Date of contract.	Statement of accounts under contract.			Fiscal year within which deficiency occurred.	Remarks.
					Amount of work returned.	Amount paid.	Amount due (deficiency).		
Nov. 27, 1875	28536	W. L. McKim	California	Sept. 15, 1873	\$2,919 61	\$854 47	\$2,065 14	1874	Account for \$854. 47 on file in the Treasury Department.
		William Minto	do	June 26, 1875	2,266 85	.....	2,266 85	1876	
		J. R. Glover	do	Sept. 16, 1875	388 21	.....	388 21	1876	
		F. T. Perris	do	Jan. 31, 1876	268 66	.....	268 66	1876	
		John Gilchrist	do	Jan. 21, 1876	535 94	.....	535 94	1876	
		John A. Benson	do	Dec. 13, 1875	491 60	.....	491 60	1876	
Jan. 24, 1876	28970	D. D. Brown	do	July 19, 1875	4,384 95	4,102 31	282 64	1876	{ Accounts for \$4,102.31 on file in the Treasury Department.
Feb. 21, 1876	29048	John A. Benson	do	Nov. 14, 1876	913 46	.....	913 46	1877	
Feb. 26, 1876	29060	S. P. Henry	Louisiana	Jan. 21, 1875	618 08	.....	618 08	1875	
Aug. 31, 1876	29857	John P. Apthorp	Florida	May 20, 1875	2,881 82	2,482 72	399 10	1876	Accounts for \$2,482.72 on file in the Treasury Department.
Apr. 23, 1877	30756								
Total					.....	.....	13,230 62		

DEPARTMENT OF THE INTERIOR,
General Land Office, October 22, 1878.J. A. WILLIAMSON,
Commissioner.

No. 18.—*Historical and statistical table of the United States and Territories, showing the area of each in square miles and in acres; the date of organization of Territories; date of admission of new States into the Union; and the population of each State and Territory at the taking of the last census in 1870.*

Civil divisions.	Act organiza- ing Terri- tory.	United States Statutes.		Act admitting State.	United States Statutes.		Area of the States and Territories.		Number of acres surveyed up to June 30, 1878.	Area remaining unsurveyed on the 30th June, 1878.	Population in 1870.
		Vol.	Page.		Vol.	Page.	In square miles.	In acres.			
THE THIRTEEN ORIGINAL STATES.											
New Hampshire.							9, 280	5, 939, 200			318, 300
Massachusetts							7, 800	4, 992, 000			1, 457, 351
Rhode Island.							1, 306	835, 840			217, 355
Connecticut							4, 750	3, 040, 000			537, 454
New York							47, 000	30, 080, 000			4, 382, 759
New Jersey							8, 320	5, 324, 800			906, 096
Pennsylvania							46, 000	29, 440, 000			3, 521, 951
Delaware							2, 120	1, 356, 800			125, 015
Maryland							11, 124	7, 119, 360			780, 894
Virginia							38, 348	24, 542, 720			1, 225, 163
North Carolina							50, 704	32, 450, 560			1, 071, 361
South Carolina							34, 000	21, 760, 000			705, 606
Georgia							58, 000	37, 120, 000			1, 184, 109
STATES ADMITTED.											
Kentucky				Feb. 4, 1791	1	189	37, 680	24, 115, 200			1, 321, 011
Vermont				Feb. 18, 1791	1	191	10, 212	6, 535, 680			330, 551
Tennessee				June 1, 1796	1	491	45, 600	29, 184, 000			1, 258, 520
Maine				Mar. 3, 1820	3	544	35, 000	22, 400, 000			626, 915
Texas				Dec. 29, 1845	9	108	274, 356	175, 587, 840			818, 579
West Virginia				Dec. 31, 1862	12	633	23, 000	14, 720, 000			442, 014
PUBLIC LAND STATES AND TERRITORIES.											
States.											
Ohio				Apr. 30, 1802	2	173	39, 964	25, 576, 960	25, 576, 960		2, 665, 260
Louisiana	Mar. 3, 1805	2	331	Apr. 8, 1812	2	701	41, 346	26, 461, 440	25, 232, 044	1, 229, 396	726, 915
Indiana	May 7, 1800	2	58	Dec. 11, 1816	3	399	33, 809	21, 637, 760	21, 637, 760		1, 680, 637
Mississippi	Apr. 7, 1798	1	549	Dec. 10, 1817	3	472	47, 156	30, 179, 840	30, 179, 840		827, 922
Illinois	Feb. 3, 1809	2	514	Dec. 3, 1818	3	536	55, 414	35, 465, 093	35, 465, 093		2, 539, 891
Alabama	Mar. 3, 1817	3	371	Dec. 14, 1819	3	608	50, 722	32, 462, 115	32, 462, 115		996, 992
Missouri	June 4, 1812	2	743	Mar. 2, 1824	3	645	65, 350	41, 824, 000	41, 824, 000		1, 721, 295
Arkansas	Mar. 2, 1819	3	493	June 15, 1836	5	50	52, 198	33, 406, 720	33, 406, 720		484, 471
Michigan	Jan. 11, 1805	2	309	Jan. 26, 1837	5	144	56, 451	36, 128, 640	36, 128, 640		1, 184, 059
Florida	Mar. 30, 1822	3	654	Mar. 3, 1845	5	742	59, 268	37, 931, 520	30, 103, 796	7, 827, 724	1, 187, 748
Iowa	June 12, 1838	5	235	Mar. 3, 1845	5	742	55, 045	35, 228, 800	35, 228, 800		1, 194, 020
Wisconsin	Apr. 20, 1836	5	10	Mar. 3, 1847	9	178	53, 924	34, 511, 360	34, 511, 360		1, 054, 670

No. 18.—*Historical and statistical table of the United States and Territories, &c.—Continued.*

Civil divisions.	Act organiz- ing Terri- tory.	United States Statutes.		Act admitting State.	United States Statutes.		Area of the States and Territories.		Number of acres surveyed up to June 30, 1878.	Arearemainig unsurveyed on the 30th June, 1878.	Population in 1870.	
		Vol.	Page.		Vol.	Page.	In square milles.	In acres.				
PUBLIC LAND STATES AND TERRITORIES—Con.												
States—Continued.												
California	Mar. 3, 1849	9	403	Sept. 9, 1850	9	452	157, 801	100, 992, 640	46, 347, 402	54, 645, 238	560, 247	
Minnesota	Aug. 14, 1848	9	323	Feb. 26, 1857	11	166	83, 531	53, 459, 840	39, 172, 415	14, 287, 425	439, 706	
Oregon	May 30, 1854	10	277	Feb. 14, 1859	11	383	95, 274	60, 975, 360	21, 127, 862	39, 847, 498	90, 923	
Kansas	Mar. 2, 1861	12	209	Jan. 29, 1861	12	126	80, 891	51, 770, 240	51, 776, 240	.....	364, 399	
Nevada	May 30, 1854	10	277	Mar. 21, 1864	13	30	112, 090	71, 737, 600	11, 538, 890	60, 198, 710	42, 491	
Nebraska	Feb. 28, 1861	12	172	Feb. 6, 1867	14	391	75, 995	48, 636, 800	39, 936, 807	8, 699, 993	122, 993	
Colorado	Mar. 3, 1875	18	474	.....	.....	.....	104, 500	66, 880, 000	22, 182, 899	44, 697, 101	39, 864	
Territories.												
Wyoming	July 25, 1868	15	178	.....	.....	.....	97, 883	62, 645, 120	8, 101, 049	54, 544, 071	9, 118	
New Mexico	Sept. 9, 1850	9	446	.....	.....	.....	121, 201	77, 568, 640	8, 471, 880	69, 096, 760	91, 874	
Utah	Sept. 9, 1850	9	453	.....	.....	.....	84, 476	54, 064, 640	8, 960, 385	45, 104, 255	86, 786	
Washington	Mar. 2, 1853	10	172	.....	.....	.....	69, 994	44, 796, 160	13, 821, 545	30, 974, 615	23, 955	
Dakota	Mar. 2, 1861	12	239	.....	.....	.....	150, 932	96, 596, 480	21, 459, 412	75, 137, 068	14, 181	
Arizona	Feb. 24, 1863	12	664	.....	.....	.....	113, 916	72, 906, 240	5, 281, 737	67, 624, 503	9, 658	
Idaho	Mar. 3, 1863	12	808	.....	.....	.....	86, 294	55, 228, 160	6, 834, 009	48, 394, 151	14, 999	
Montana	May 26, 1864	13	85	.....	.....	.....	143, 776	92, 016, 640	10, 543, 827	81, 472, 813	20, 595	
Alaska	July 27, 1868	15	240	.....	.....	.....	577, 390	369, 529, 600	.....	369, 529, 600	(†)	
Indian Territory	.....	.....	.....	.....	.....	.....	68, 991	44, 154, 240	27, 003, 990	17, 150, 250	(†)	
District of Columbia	July 16, 1790 Mar. 3, 1791	1 1	130 214	.....	.....	.....	60	38, 400	.....	.....	131, 700	
Total	.....	.....	.....	.....	.....	.....	3, 580, 242	2, 291, 355, 048	724, 311, 477	1, 090, 461, 171	38, 558, 371	

† No census taken.

NOTES.

Boundaries.—Commencing at $54^{\circ} 40'$ north latitude, ascending Portland Channel to the mountains, following their summits to 141° west longitude; thence north on this line to the Arctic Ocean, forming the eastern boundary. Starting from the Arctic Ocean west, the line descends Behring Strait, between the two islands of Krusenstern and Rotmanhoff, to the parallel of $65^{\circ} 30'$, and proceeds due north, without limitation, into the same Arctic Ocean. Beginning again at the same initial point, on the parallel of $65^{\circ} 30'$; thence in a course southwest, through Behring Strait, between the island of Saint Lawrence and Cape Choukotski, to 172° west longitude; and thence southwesterly, through Behring Sea, between the islands of Alton and Copper, to the meridian of 193° west longitude, leaving the prolonged group of the Aleutian Islands in the possessions now transferred to the United States, and making the western boundary of our country the dividing line between Asia and America.

The land surface of the United States, 3,580,242 square miles, when increased by the water surface of the great lakes and rivers, gives a total area to the United States of about 4,000,000 square miles.

The areas of the thirteen original States, and of States admitted as well as of States and Territories over which the public surveys have not yet been completed, are taken from geographical authorities.

The population of the United States, as shown by the ninth census, taken, in accordance with Constitutional requirements, in 1870, was 38,558,371, to which if added the number of "Indians not taxed," would give a true population of 38,925,598.

Colorado.—Duly admitted as a State into the Union by proclamation of the President August 1, 1876 (Statutes at Large, pamphlet 1875-'76, page 7).

Alaska.—The act of 1868 merely extends the laws of the United States relating to customs, commerce, and navigation over this Territory ceded by Russia, giving to the courts of California, Oregon, and Washington Territory jurisdiction of offenses under this act. The public land system has not yet been extended over the Territory of Alaska.

Indian Territory.—This Territory is attached to the western judicial district of Arkansas. (See act of Congress approved June 30, 1834. Statutes at Large, vol. 4, p. 729.)

Washington City. in the District of Columbia, is the political capital of the United States; is situated on the left bank of the Potomac River between two small tributaries—the one on the east called the Eastern Branch and the one on the west called Rock Creek, the latter separating it from Georgetown, which is also embraced within the limits of the District of Columbia, which is under the direct control of Congress. This territory, which formerly embraced the city of Alexandria, was ceded by the States of Maryland and Virginia to the general government. By act of July 9, 1846, the cession of Virginia was retroceded.

UNITED STATES LAND OFFICES.

ALABAMA.	Springfield. Fargo. Yankton. Bismarek. Deadwood.	MINNESOTA.	NEW MEXICO TER.
Mobile. Huntsville. Montgomery.		Taylor's Falls. Saint Cloud. Duluth. Fergus Falls. Worthington. New Ulm. Benson. Detroit. Redwood Falls.	Santa Fé. La Mesilla.
ARKANSAS.	FLORIDA.		OREGON.
Little Rock. Camden. Harrison. Dardanelle.	Gainesville.		Oregon City. Roseburg. Le Grand. Lakeview. The Dalles.
	IDAHO TER.		
ARIZONA TER.	Boisé City. Lewiston.	MISSISSIPPI.	UTAH TER.
Prescott. Florence.		Jackson.	Salt Lake City.
	IOWA.		
	Fort Des Moines.	MISSOURI.	WASHINGTON TER.
CALIFORNIA.	KANSAS.	Boonville. Ironton. Springfield.	Olympia. Vancouver. Walla Walla. Colfax.
San Francisco. Marysville. Humboldt. Stockton. Visalia. Sacramento. Los Angeles. Shasta. Susanville. Bodie.	Topeka. Salina. Independence. Wichita. Kirwin. Concordia. Larned. Hays City.	MONTANA TER.	WISCONSIN.
		Helena. Bozeman.	Menasha. Falls of Saint Croix. Wausau. La Crosse. Bayfield. Eau Claire.
	LOUISIANA.	NEBRASKA.	
COLORADO.	New Orleans. Monroe. Natchitoches.	Norfolk. Beatrice. Lincoln. Niobrara. Grand Island. North Platte. Bloomington.	WYOMING TER.
Denver City. Fair Play. Central City. Pueblo. Del Norte. Lake City.			Cheyenne. Evanston.
	MICHIGAN.	NEVADA.	
DAKOTA TER.	Detroit. East Saginaw. Reed City. Marquette.	Carson City. Eureka.	
Sioux Falls.			

NOTE.—By act of July 31, 1876, the land offices in Ohio, Indiana, and Illinois were abolished; and by act of March 3, 1877, the vacant tracts of public land in Ohio, Indiana, and Illinois are made subject to entry and location at the General Land Office, Washington, D. C.

REPORTS
OF THE
UNITED STATES SURVEYORS GENERAL
FOR THE
FISCAL YEAR ENDING JUNE 30, 1878.

REPORTS

OF THE

UNITED STATES SURVEYORS GENERAL

FOR THE

FISCAL YEAR ENDING JUNE 30, 1918

A.—Report of the surveyor general of Louisiana.

OFFICE OF SURVEYOR GENERAL OF LOUISIANA,
New Orleans, August 28, 1878.

SIR: In compliance with instructions, I have the honor to make the following report of surveying operations in this district for the fiscal year ending June 30, 1878, together with tabular statements of field and office work, to wit:

A.—Statement of surveying contracts on account of appropriation for fiscal year ending June 30, 1875.

B.—Statement of surveying contracts on account of appropriation for fiscal year ending June 30, 1877.

C.—Statement of surveying contracts on account of appropriation for the fiscal year ending June 30, 1878.

D.—Estimate of funds required for surveying and salaries during the fiscal year 1879-'80.

FIELD WORK.

Not much work has been done in the field in this district during the fiscal year ending the 30th June last. The small apportionment of \$7,200 made in its favor for that year, out of the \$300,000 appropriated by the act of March 3, 1877, was nearly all absorbed in two contracts for the resurvey of fourteen townships in what is known as the "pine-timber belt" of the southwestern district. The contractors were J. L. Bradford, J. P. Parsons, and John Kap, deputies of experience and much fitness in Louisiana resurveys. All the work returned by them has been approved, the maps constructed, and, with transcripts of the field notes, transmitted to the bureau and payments made therefor. The three deputies named resurveyed ten townships.

Under the apportionment of the \$17,500 given the district for the current fiscal year of the \$300,000 appropriated by the act of June 20, 1878, two contracts have been let, one to J. P. Parsons and one to John Kap and J. L. Bradford, for the resurvey of twenty-nine townships within the pine-timber belt of the Calcasieu country. These deputies have been instructed, agreeably to your instructions communicated to me by letter of July 15, 1878, to examine and report upon all subsisting homestead entries falling within the limits of their respective townships. These gentlemen had, in executing previous contracts within the timber belt, observed and communicated to me the general facts of abandonment or other non-compliance with the law by homesteaders in that region, and they agreed, in future contracts, if lists of such entries should be furnished them, to make personal examinations of the tracts affected by such entries, and to report the same upon the completion of their work. This they will do without compensation, and for it they will be entitled to the thanks of the bureau. I think their reports will show that about 80 per centum of all homestead entries of pine lands should be canceled and the lands put upon the market. The contracts let under the allotment for the current year create a liability against the government of \$16,000, leaving \$1,500 to cover deficiencies, in obedience to your general instructions of July 15, 1878. Should no deficiencies arise, this contingent will be employed in any special surveys which may or have become necessary, and if they do not absorb it, the remainder will also be employed in the resurveys of the timber lands of the Calcasieu region. I desired to employ of the apportionment for this year enough to extend the township lines across the large unsurveyed strip bordering on the Gulf and lying between the Vermillion Bay and the Sabine, and which has been the subject of previous reports and communications from this office. But after the apportionment was communicated to me by your letter of July 15, 1878, I saw that it was not sufficient to enable me to enter upon this work and to devote a proper share to the more important wants of the Calcasieu region, where at last the government had succeeded in checking the principal depredations upon the pine timber which, in my opinion, owed their origin in a large measure to the want of visible and durable surveys by which lands might be identified and titles safely acquired.

Under your instructions of June 13, 1877, to appoint a competent deputy for service under M. A. Carter, special agent of the Interior Department, I appointed and commissioned George K. Bradford, of New Orleans, who, in June, of 1877, reported to Mr. Carter, and was at once assigned to the duty of making special surveys and field examinations in Calcasieu Parish of the public lands from which the pine timber had been cut and removed, and which timber was the subject of certain suits then pending in the United States circuit court in this city. Mr. Bradford prosecuted his duties under circumstances of embarrassment and trial, and to the entire satisfaction of Mr. Carter and of this office, completing his work in June last, and so reporting to me. The success attending the proceedings of Mr. Carter in this State in the suppression of depredations on the pine-timber lands, and notably in the Calcasieu region, has been conspicuous. No one can form a fair estimate of his services who is unacquainted

with the country he had to operate in and the people among whom he carried on his measures. Suffice it to say that for the first time has the government ever impressed upon the timber depredators of this State the slightest respect for its rights or induced the spoiler to stay his hand. It seems to be conceded that the wholesale depredation upon the public timber in Louisiana has ceased for the present, and if it still goes on at all, as I am inclined to think it does, it is carried on by settlers and homesteaders on a small scale, and for individual or local uses. Whether such small and exceptional depredations can ever be suppressed by any means at all commensurate with the small value of the timber thus taken is exceedingly doubtful.

OFFICE WORK.

But little has been done for the last fiscal year in issuing certificates of location under the third section of the act of June 2, 1858. I have issued on only fifty-six claims, leaving applications on file for certificates in several hundred more, in which the claimants for relief fail to bring themselves within the requirements of the rules of 26th August, 1872, prescribed by the bureau to my predecessor.

I again deem it my duty to call your attention to the very large amount of office work in arrears in this district, and to the great necessity of adequate appropriations to enable me to bring it up. For particulars I beg leave to refer you to my other annual reports, only recapitulating here their general statements. There remain the field notes of 784 townships which, under the law and usage, should be copied and sent to the seat of government for safe-keeping. There are something over 6,000 private land claims unpatented, and which must remain so until this office can prepare and transmit to the bureau and the proper local land offices the duplicate patent plats required by law. There are other heads of work in arrear, of less importance, heretofore laid before you and not necessary to be repeated here. Some of this work can and will be brought up under the increased allowance of \$4,000 for clerk hire for the current fiscal year under the act of June 20, 1878.

Very respectfully, your obedient servant,

O. H. BREWSTER,
Surveyor General Louisiana.

Hon. J. A. WILLIAMSON,
Commissioner of the General Land Office.

A.—Statement of surveying contracts entered into by the surveyor-general of Louisiana on account of the appropriation of \$15,000 for the fiscal year ending June 30, 1875, approved by act of Congress of June 23, 1874.

No.	Date of contract.	Name of deputy surveyor.	Locality of work.	District.	Estimated liability.	Amount paid.	Remarks.
1	July 11, 1874	John P. Parsons	Township 10 south, range 1 west; township 7 south, ranges 4, 5, and 6 west.	Southwestern	\$2, 500 00	\$2, 903 17	Surveys completed, notes approved, maps and transcript transmitted.
2	Dec. 17, 1874	Jas. L. Bradford	Triangulation to connect township-lines across Atchafalaya River, township 6 south, range 5 east; township 7 south, range 5 east.	Southwestern	3, 500 00	3, 486 75	Work completed on Atchafalaya; also in township 6 south, range 5 east; and fractional township 7 south, range 5 east; notes returned and approved, maps and transcript of notes transmitted.
3	Dec. 21, 1874	John Deegan	Lake Terre Noire, township 9 north, range 7 west.	Northwestern	250 00	193 07	Work completed and approved, maps and transcript transmitted.
4	Jan. 21, 1875	S. P. Henry	Township 14 south, range 6 west; township 15 south, ranges 6 and 7 west.	Southwestern	750 00	.....	Surveys completed, except in township 14 south, range 6 west, maps and transcript transmitted; his account, amounting to \$618.08, was found correct, but could not be paid because the unexpended balance of the appropriation of June 23, 1874, to which it is chargeable, was carried to the surplus fund of the Treasury; said amount, found to be due, will be included in an estimate to be submitted for reappropriation by Congress.—(See Commissioner's letter of August 21, 1877.)
5	Jan. 26, 1875	Thos. Jeff. Allison	Township 14 south, range 8 east; township 15 south, range 7 east.	Southwestern	1, 000 00	1, 000 20	Work completed in township 14 south, range 8 east, notes approved, maps and transcript transmitted.
6	Mar. 5, 1875	John J. Byles	Connections around the La Nana grant and Ormigoos.	Northwestern	1, 500 00	1, 504 60	Work completed and approved, maps and transcript transmitted.
7	April 8, 1875	James L. Bradford	Townships 22, 23, 24 south, ranges 33 and 34 east, South Pass.	Southeastern	1, 300 00	1, 300 00	Notes returned and approved, maps and transcript transmitted.
Total					.....	10, 387 79	
Appropriation as per act of Congress approved June 23, 1874					15, 000 00	.....	
Balance unexpended					.....	4, 612 21	
Total					15, 000 00	15, 000 00	

OFFICE OF SURVEYOR-GENERAL DISTRICT OF LOUISIANA, New Orleans, August 28, 1878.

O. H. BREWSTER, Surveyor General, Louisiana.

B.—Statement of surveying contracts entered into by the surveyor general of Louisiana on account of the appropriation of \$7,000 for the fiscal year ending June 30, 1877.

No.	Date of contract.	Name of deputy surveyor.	Locality of work.	District.	Estimated liability.	Amount paid.	Remarks.
1	Oct. 19, 1876	James L. Bradford and John Kap.	Townships 1 and 2 north, ranges 2 and 3 west; townships 2 and 3 south, range 1 west; townships 1, 2, and 3 south, range 2 west; township 1 south, range 4 west; townships 1, 2, 3, 4, and 5 south, ranges 5 and 6 west; and township 6 south, range 6 west.	Southwestern.....	\$6,850 00	\$6,976 97	Surveys completed (except in township 1 north, range 3 west; township 2 north, ranges 2 and 3 west; townships 2 and 3 south, range 1 west; township 5 south, ranges 5 and 6 west; and township 6 south, range 6 west); notes approved; maps and transcript transmitted.
2	Jan. 25, 1877	John P. Parsons.....	Township 8 south, ranges 2, 3, and 4 east.	Southeastern.....	150 00	168 09	Surveys completed in township 8 south, ranges 2 and 3 east; notes approved; maps and transcript transmitted.
Excess on contract No. 1.....				\$126 97		7,145 06	
Excess on contract No. 2.....				18 09		145 06	
Total.....						7,000 00	
Appropriation (act of Congress July 31, 1876).....					7,000 00		
Total.....					7,000 00	7,000 00	

O. H. BREWSTER,
Surveyor General, Louisiana.

OFFICE OF SURVEYOR GENERAL,
District of Louisiana, New Orleans, August 28, 1878.

C.—Statement of surveying contracts entered into by the surveyor general of Louisiana on account of the appropriation of \$7,200 for the fiscal year ending June 30, 1878.

No.	Date of contract.	Name of deputy surveyor.	Locality of work.	District.	Estimated liability.	Amount paid.	Remarks.
1	Aug. 23, 1877	James L. Bradford and John Kap.	Townships 2 and 3 south, range 1 west; township 1 south, range 3 west; townships 5 and 6 south, ranges 5 and 6 west.	Southwestern...	\$4,800 00	\$4,603 58	Surveys completed and approved; maps and transcript transmitted; a balance of \$361.89 is still due.
2	Aug. 27, 1877	John P. Parsons.....	Townships 7 and 8 south, range 11 west; townships 8, 9, and 10 south, range 10 west; township 11 south, ranges 11 and 12 west.	Southwestern...	2,400 00	2,596 42	Surveys completed in townships 7 and 8 south, range 11 west, and township 8 south, range 10 west; notes approved; maps and transcript transmitted.
Total.....					7,200 00	7,200 00	
Appropriation (act of Congress March 3, 1877)					7,200 00	7,200 00	
Total.....					7,200 00	7,200 00	

O. H. BREWSTER,
Surveyor General Louisiana.

OFFICE OF SURVEYOR GENERAL DISTRICT OF LOUISIANA,
New Orleans, August 28, 1878.

D.—*Estimate of funds to be appropriated for the fiscal year ending June 30, 1880, for surveying in Louisiana, for compensation of surveyor general and his clerks, and for contingent expenses in his office.*

Proposed surveys and resurveys:

\$34,800 is estimated for completing the resurveys of the public lands in the southwestern district, where, on account of the great lapse of time since the original surveys were made, or are supposed to have been made, viz, 1807, the old lines and corners are generally totally obliterated in the field and the disposition of land prevented by the inability of settlers and others to describe the land desired to be entered. The number of townships falling under this head in that district is 44, and their resurvey is believed to be necessary to enable the officers of the government to check the destruction of timber, now going on so extensively, by enabling them to identify the lands despoiled, and thus pave the way to the punishment of the offenders. This estimate is based on the rate of \$12 per mile for township lines and \$10 for section lines, for less than which sums able and faithful surveyors cannot be obtained for Louisiana surveying	\$34, 800	
\$7,850 is estimated for the much-needed resurvey of a few townships in the southeastern district on the Mississippi River above New Orleans, and as far up as Donaldsonville, and for the location of private land claims on the same and on the Bayou Lafourche....	7, 850	
\$14,000 is estimated at rates as above stated for the original townships and sectional surveys in the southwestern district of the strip of country situated on the Gulf coast and south of the limit of the old surveys of 1807 and 1830. The township lines should be extended across this region to the Gulf, and the lands found valuable on the ridges, bayous, and lakes within it should be surveyed under the radiating lot system. These surveys are demanded by the wants of large numbers of settlers cultivating much of this land, and by the general interest of the government and the State of Louisiana	14, 000	
\$1,800 is estimated to finish the original survey of the public lands on the Southeast Pass of the Mississippi and on the Bayou Balize, contracted for by Deputy J. L. Bradford in his contract No. 7, of April 8, 1875, but work not executed then for lack of funds.....	1, 800	
\$6,000 is estimated as necessary to survey originally islands in the several districts, to traverse a part of the Sabine River, and connect the township and section lines thereon; to locate private claims in the several districts, and to finish the survey of the rich and heavily-settled townships 4 south, ranges 1 and 2 east, southwestern district, contracted to be surveyed by Deputy J. L. Bradford, in his contract No. 3, of July 26, 1875, but left unfinished by reason of insufficiency of existing appropriation.....	6,000	
		\$64, 450

Salaries.

Surveyor general.....	\$2, 000	
One chief clerk.....	1, 800	2, 000
One clerk and draughtsman	1, 800	
One assistant draughtsman.....	1, 200	
		4, 800
Fourteen clerks for office work in arrear, to prepare plats and field notes, at \$1,000 each.....	14, 000	
		14, 000

Contingent expenses.

Stationery, binding, messenger hire, and all other incidental expenses.	2, 000	
		2, 090

Total estimate of appropriation required 87, 250

O. H. BREWSTER,
Surveyor General Louisiana.

OFFICE OF SURVEYOR GENERAL,
DISTRICT OF LOUISIANA,
New Orleans, August 28, 1878.

B.—Report of the surveyor general of Florida.

UNITED STATES SURVEYOR GENERAL'S OFFICE,
DISTRICT OF FLORIDA,
Tallahassee, Fla., September 14, 1878.

SIR: In obedience to instructions, I have the honor to make the following report of surveying operations in this district for the year ending June 30, 1878, together with tabular statements of the field and office work as follows:

- A.—Showing condition of contracts entered into since the last annual report.
- B.—Showing present condition of contracts not closed at date of last annual report.
- C.—Statement of township plats furnished the local land office.
- D.—Estimate of appropriation required for the next fiscal year.

In addition to the work shown by the foregoing statements there have been completed for the local land office sixty-two descriptive corners and several indexes needed to complete the records of the office. Much other work is still in arrears. The contract entered into with Deputy J. A. Henderson, on the boundary line, has been nearly filled, and the work will be forwarded in a few days. The survey of Deputy Smith is now in the office and will be forwarded as soon as the limited clerical force will admit. The allotment of \$6,000 for surveys in this district for the present year will be expended in the survey of lands along the boundary line and the islands and fractional townships along the Gulf coast, as directed in yours of July 15.

Very respectfully, your obedient servant,

LE ROY D. BALL,
Surveyor General District of Florida.

Hon. J. A. WILLIAMSON,
Commissioner of the General Land Office.

A.—Report of surveying operations in the district of Florida, showing contracts entered into during the fiscal year ending June 30, 1878.

Names of deputies.	No. of contract.	Date of contract.	Location of work.	Time allowed.	When returned.	Remarks.
Charles F. Hopkins.....	29	July 20, 1877	An island in township 15 south, range 28 east...	December 1, 1877.....	Dec. -, 1877	On account of special deposit, work forwarded February 1, 1878.
John A. Henderson	30	July 30, 1877	The lands lying between the boundaries known as the Orr & Whitner and the Walson lines.	March 1, 1878, extended to July 1, 1878.	June 26, 1878	Not yet forwarded.
James Green.....	31	Sept. 22, 1877	Island in township 2 south, range 27 east.....	November 1, 1878, extended to January 1, 1878.	Dec. 2, 1877	On account of special deposit, work forwarded March 30, 1878.
D. D. Rogers.....	32	May 3, 1878	Island in township 17 south, range 34 east	September 1, 1878	July 5, 1878	Not yet approved.
Charles F. Smith.....	33	May 31, 1878	In section 13, township 2 south, range 27 east, and sections 18 and 19, township 2 south, range 26 east.			Contract canceled.
Charles F. Hopkins.....	34	June 30, 1878	4,000 acres of the John Hunter claim.....	.....	July 30, 1878	On account of special deposit.

SURVEYOR GENERAL'S OFFICE, Tallahassee, Fla., September 14, 1878.

LE ROY D. BALL, Surveyor General, Florida.

B.—Statement showing present condition of contracts not closed at date of last annual report.

Name of deputy.	No. of contract.	Date.	Location of work.	Remarks.
John P. Apthorp .	20	May 20, 1875	Islands in Gulf coast, from township 26 south to Casey's Key.	Balance of work forwarded October 6, 1877.
Walter Gwynn ..	22	June 31, 1876	Islands in Lake Jessup, township 20 south, range 31 east.	On account of special deposit. Work not yet forwarded.
Edw. E. Ropes....	24	Dec. 11, 1876	Islands in Denler Lake, township 16 south, range 29 east.	On account of special deposit. Not returned, the deputy being unable to complete the survey on account of high water in the lake.
W. J. McEddy....	23	July 8, 1876	Islands in Lake Harris, township 20 south, range 25 east.	On account of special deposit. Work forwarded July 2, 1877.
Charles F. Smith .	25	Feb. 10, 1877	Resurvey of townships 42, 43, and 44 south, range 43 east.	Contract canceled.
D. D. Rogers.....	26	May 8, 1877	Islands in Halifax River, township 15 south, range 33 east.	On account of special deposit. Work forwarded November 6, 1877.
Charles F. Smith .	27	June 22, 1877	Unsurveyed lands and islands on the Gulf coast.	Contract returned.
A. C. Hughey .....	.....	Jan. —, 1877	Resurvey of Dewees grant.	Contract canceled.

LEROY D. BALL,
Surveyor General Florida.

SURVEYOR GENERAL'S OFFICE,
Tallahassee, Fla., September 14, 1878.

C.—List of township plats furnished the local land office.

Township south.	Range east.	No. of plats.	When furnished.	Remarks.
33.....	15	4	Sept. 28, 1877	Surveyed by John P. Apthorp.
36 and 37.....	17			
37.....	18			
15.....	33	1	Oct. 24, 1877	Surveyed by D. D. Rogers.
27.....	37	1	Dec. 1, 1877	Surveyed by R. C. May.
15.....	28	1	Jan. 3, 1877	Surveyed by C. F. Hopkins.
28 and 29.....	18	6	Feb. 8, 1878	Application of register.
29.....	19			
9.....	23			
5 and 40.....	24	1	Mar. 5, 1878	Do.
43.....	27			
2.....	27			
12.....	27	1	Mar. 12, 1878	Survey of James Green.
			Apr. 30, 1878	Application of register.
Total number of plats		16		

LEROY D. BALL,
Surveyor General Florida.

SURVEYOR GENERAL'S OFFICE,
Tallahassee, Fla., September 14, 1878.

D.—Estimate of appropriations required for the surveying service in the district of Florida for the fiscal year ending June 30, 1878.

Salary of surveyor general.....	\$2,000
Salary of chief clerk.....	1,600
Salary of draughtsman.....	1,400
Salary of transcribing clerk.....	1,200
Rent and contingent expenses.....	1,000
Surveying the public lands.....	10,000
	17,200

LEROY D. BALL,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Tallahassee, Fla., September 14, 1878.

C.—Report of the surveyor general of Minnesota.

UNITED STATES SURVEYOR GENERAL'S OFFICE,
Saint Paul, Minn., August 31, 1878.

SIR: I have the honor to submit herewith, in duplicate, my annual report of the surveying operations in this district for the fiscal year ending June 30, 1878.

All the surveys under contract at the date of last annual report, and all surveys chargeable to the appropriation for the fiscal year ending June 30, 1878, have been completed, examined, and approved, the plats and transcripts of field notes transmitted to the General Land Office, and plats and descriptive sheets furnished the local land offices.

The several statements and estimates accompanying this report will exhibit the progress and present condition of the field and office work to this date, and are as follows:

A. Statement showing the completion of contracts entered into on account of the \$13,500 assigned to Minnesota for the fiscal year ending June 30, 1877, from the appropriation of \$300,000, act of July 31, 1876.

B. Statement showing the completion of contracts entered into on account of the \$12,400 assigned to Minnesota for the fiscal year ending June 30, 1878, from the appropriation of \$300,000, act of March 3, 1877.

C. Statement of contracts entered into on account of the \$15,000 assigned to Minnesota for the fiscal year ending June 30, 1879, from the appropriation of \$300,000, act of June 20, 1878.

D. Statement of original, Commissioner's, and register's plats made and date of transmission to the general and local land offices.

E. Statement of townships surveyed in Minnesota since last annual report, showing area and number of miles, including meanders, in each; also number of miles of standard and meridian and township lines, and total number of acres surveyed in the State.

F. Estimates of appropriations required for continuing the public surveys in Minnesota for the fiscal year ending June 30, 1880.

G. Statement showing the amount of salaries paid to surveyor general and clerks for the fiscal year ending June 30, 1878.

H. Statement of the incidental expenses of the office for the fiscal year ending June 30, 1878.

I. Statement showing condition of appropriation for surveys of public land in Minnesota for the fiscal year ending June 30, 1878.

The tide of immigration flowing into the northern and western portion of our State during the last year is unprecedented. The immense yield of all our cereals in 1877 (except the limited district ravaged by grasshoppers) attracted many thousands of the poor and industrious classes of the older and more populous States, and foreign countries, to our rich and productive soil. The reports of the several district land offices in this State will show the extent of the immigration in the vast increase in the amount of public lands disposed of, particularly under the homestead, pre-emption, and timber-culture laws.

The Saint Paul and Pacific Railroad Company is now extending its line down the Red River of the North, and will have it completed to Saint Vincent this fall, thus opening up a large and fertile section of our State heretofore deemed almost inaccessible for agriculture, owing to the great expense attending the transportation of the crops to market. Much attention is now directed to that section, and I predict a large immigration into the Red River Valley next season.

The Saint Paul and Duluth Railroad Company is constructing a branch line of their road from Thomson to the head of Knife Falls, on the Saint Louis River, which will make available the large tracts of pine timber on that river and its tributaries. In this connection I desire to repeat the suggestion in my last annual report, that Congress be requested to modify the law for the disposal of timber lands. It is well known that pine lands are of no practical value except for the timber, and it is hardly possible that the requirements of the homestead or pre-emption laws can be complied with in the entry of them.

By restricting the sale of these lands for a number of years, upon the theory of holding them for "actual settlers," when our whole experience shows that "settlements" are seldom, if ever, made thereon, the timber is taken and removed by those who would willingly purchase and pay for the land if the law would permit them to do so, and when the lands are finally "offered" there are no purchasers, because all that made them valuable has been removed. I deem this matter of sufficient importance to merit the earnest attention of Congress.

All of which is respectfully submitted.

J. H. BAKER,
Surveyor General.

Ho 1. J. A. WILLIAMSON,
Commissioner General Land Office, Washington, D. C.

A.—Statement of contracts entered into by the surveyor general of Minnesota, on account of the \$13,500 assigned to Minnesota, for the fiscal year ending June 30, 1877. Appropriation of \$300,000, act of July 31, 1876.

Name of deputy.	Date of contract.	Description of work.	Estimated liability.	Amount paid.	Condition of work.	Remarks.
Kindred and Thurston...	Sept. 23, 1876	The fourth principal meridian from the ninth correction line, north to the international boundary, township lines between townships 63 and 64 north, in range 3 east. Range lines between ranges 3 and 4 east, in township 64 north; between ranges 1 and 2, 2 and 3, 3 and 4 west, in township 65 north. Subdivision of township 65 north, in range 1 east; townships 64 and 65 north, in range 3 east; township 65 north, in ranges 1, 2, and 3 west, fourth principal meridian.	\$2,700 00	\$2,254 99	Survey completed and approved; plats and field-notes transmitted.	Townships 64 and 65 north, in range 3 east, fourth principal meridian, returned in last report.
William A. Kindred	June 4, 1877	Subdivision of township 64 north, in range 2 east, fourth principal meridian.	600 00	533 91	Survey completed and approved; plats and field-notes transmitted.	

J. H. BAKER, Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Saint Paul, Minn., August 31, 1878.

B.—Statement of contracts entered into by the surveyor general of Minnesota, on account of the \$12,400 assigned to Minnesota, for the fiscal year ending June 30, 1878. Appropriation of \$300,000, act of March 3, 1877.

Name of deputy.	Date of contract.	Description of work.	Estimated liability.	Amount paid.	Condition of work.	Remarks.
Stuntz & Hamilton.....	July 7, 1877	The ninth correction line from the corner to township 65 north, between ranges 3 and 4 west, due west 24 miles, or to its intersection with the international boundary at or near Knife Lake. Township lines between townships 65 and 66 north, in ranges 4, 5, and 6 west. Range lines between ranges 4 and 5; 5 and 6 west, in townships 65 and 66 north; between ranges 6 and 7; 7 and 8 west, in township 65 north, unless said last-named line is the international boundary. Subdivision of township 65 north, in ranges 4, 5, 6, and 7 west; township 66 north, in ranges 4, 5, and 6 west, of the fourth principal meridian. Township line between townships 155 and 156 north, in range 44 west. Range line between ranges 43 and 44 west, in township 155 north. Subdivision of township 155 north, in range 44 west, of the fifth principal meridian.	\$5, 800 00	\$5, 907 45	Survey completed and approved; plats and field notes transmitted.	Subdivision of township 65 north, in ranges 5 and 7 west, and township 66 north, in range 6 west, fourth principal meridian, canceled by authority of the Commissioner of the General Land Office, letter E, dated July 20, 1878.
Eli W. Griffin.....	July 6, 1877	Township line between townships 155 and 156 north, in range 44 west. Range line between ranges 43 and 44 west, in township 155 north. Subdivision of township 155 north, in range 44 west, of the fifth principal meridian.	450 00	444 66	Survey completed and approved; plats and field notes transmitted.	North and east exterior lines, and subdivision of township 162 north, in range 43 west, authorized by special instructions dated September 5, 1877.
Henry S. and Frank D. Howe.	July 10, 1877	The fifteenth standard parallel from the sixth guide meridian, due east, 18 miles. Township lines between townships 161 and 162 north, in ranges 43, 44, and 45 west; between townships 162 and 163 north, in ranges 44 and 45 west. Range lines between ranges 42 and 43; 43 and 44; 44 and 45 west, in townships 160 and 161 north; between ranges 43 and 44; 44 and 45 west, in township 162 north. Subdivision of townships 160 and 161 north, in ranges 43, 44, and 45 west; township 162 north, in ranges 44 and 45 west, fifth principal meridian.	4, 900 00	4, 759 11	Survey completed and approved; plats and field notes transmitted.	
Ashbel Ingerson.....	July 12, 1877	Township line between townships 155 and 156 north, in range 43 west. Range lines between ranges 42 and 43; 43 and 44; 44 and 45 west, in township 156 north. Subdivision of township 156 north, in ranges 43, 44, and 45 west, fifth principal meridian.	1, 250 00	1, 260 10	Survey completed and approved; plats and field notes transmitted.	

J. H. BAKER,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Saint Paul, Minn., August 31, 1878.

C.—Statement of contracts entered into by the surveyor general of Minnesota, on account of the \$15,000 assigned to Minnesota, for the fiscal year ending June 30, 1879. Appropriation of \$300,000, act of June 20, 1878.

Name of deputy.	Date of contract.	Description of work.	Estimated liability.	Amount paid.	Condition of work.	Remarks.
Henry S. and Frank D. Howe.	July 25, 1878	Township lines between townships 57 and 58 north, in ranges 15 and 16 west; between townships 58 and 59 north, in ranges 15, 16, 17, and 18 west; between townships 59 and 60 north, in ranges 15, 16, and 17 west. Range lines between ranges 14 and 15 west, in townships 57 and 58 north; between ranges 15 and 16 west, in townships 57, 58, and 59 north; between ranges 16 and 17 and 17 and 18 west, in townships 58 and 59 north; between ranges 18 and 19 west, in township 58 north. Subdivision of townships 57, 58, and 59 north, in ranges 15 and 16 west; townships 58 and 59 north, in range 17 west; township 58 north, in range 18 west, fourth principal meridian.	\$5,750 00	.....	No returns.	
Stuntz and Hamilton	Aug. 7, 1878	Subdivision of township 67 north, in range 4 west; township 66 north, in range 6 west; township 65 north, in range 7 west, fourth principal meridian.	1,350 00	.....	No returns.	

J. H. BAKER,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Saint Paul, Minn., August 31, 1878.

D.—Statement of original, Commissioner's, and register's plats made, and date of transmission to the general and local land offices, since the date of last annual report.

Township.	Range.	Land district.	Original.	Commissioner's.	Date of transmission.	Register's.	Date of transmission.	Total.
<i>East of 4th P. M.</i>								
65	1	Duluth.....	1	1	Nov. 26, 1877	1	May 31, 1878	3
64	2	do.....	1	1	Oct. 24, 1877	1	May 31, 1878	3
<i>West of 4th P. M.</i>								
65	1	Duluth.....	1	1	Nov. 26, 1877	1	May 31, 1878	3
65	2	do.....	1	1	Jan. 7, 1878	1	May 31, 1878	3
65	3	do.....	1	1	Jan. 7, 1878	1	May 31, 1878	3
65	4	do.....	1	1	Feb. 8, 1878	1	Aug. 23, 1878	3
66	4	do.....	1	1	July 17, 1878	1	Aug. 23, 1878	3
66	5	do.....	1	1	Apr. 13, 1878	1	Aug. 23, 1878	3
65	6	do.....	1	1	Apr. 13, 1878	1	Aug. 23, 1878	3
<i>West of 5th P. M.</i>								
156	43	Detroit.....	1	1	Jan. 28, 1878	1	May 14, 1878	3
160	43	do.....	1	1	Dec. 17, 1877	1	May 14, 1878	3
161	43	do.....	1	1	Jan. 18, 1878	1	May 14, 1878	3
162	43	do.....	1	1	Feb. 27, 1878	1	May 14, 1878	3
155	44	do.....	1	1	Oct. 8, 1877	1	May 14, 1878	3
156	44	do.....	1	1	Jan. 28, 1878	1	May 14, 1878	3
160	44	do.....	1	1	Dec. 17, 1877	1	May 14, 1878	3
161	44	do.....	1	1	Jan. 18, 1878	1	May 14, 1878	3
162	44	do.....	1	1	Feb. 19, 1878	1	May 14, 1878	3
156	45	do.....	1	1	Jan. 28, 1878	1	May 14, 1878	3
160	45	do.....	1	1	Dec. 17, 1877	1	May 14, 1878	3
161	45	do.....	1	1	Feb. 19, 1878	1	May 14, 1878	3
162	45	do.....	1	1	Feb. 19, 1878	1	May 14, 1878	3
Total.....			22	22	.....	22	.....	66

J. H. BAKER,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Saint Paul, Minn., August 31, 1878.

E.—Statement of townships surveyed in Minnesota since last annual report, showing area and number of miles surveyed, including meanders in each.

EAST OF THE FOURTH PRINCIPAL MERIDIAN.

Number.	Township.	Range.	Area.	Miles surveyed.
1.....	65	1	7,453.30	Miles. chs. lks. 58 12 37
2.....	64	2	19,344.09	88 78 76

WEST OF THE FOURTH PRINCIPAL MERIDIAN.

3.....	65	1	7,591.20	56 36 84
4.....	65	2	8,363.52	66 63 54
5.....	65	3	6,039.40	38 73 92
6.....	65	4	19,976.88	96 41 29
7.....	66	4	10,342.20	101 45 91
8.....	66	5	12,414.70	122 64 33
9.....	65	6	17,714.86	170 07 95

E.—Statement of townships surveyed in Minnesota, &c.—Continued.

WEST OF THE FIFTH PRINCIPAL MERIDIAN.

Number.	Township.	Range.	Area.	Miles surveyed.		
				<i>Miles.</i>	<i>chs.</i>	<i>lks.</i>
10.....	156	43	22,099.56	59	59	95
11.....	160	43	22,714.78	61	29	93
12.....	161	43	23,018.84	59	78	13
13.....	162	43	22,968.01	59	72	99
14.....	155	44	23,090.72	60	05	72
15.....	156	44	22,664.69	60	43	29
16.....	160	44	22,752.33	61	05	80
17.....	161	44	23,040.86	60	01	09
18.....	162	44	23,041.75	60	00	76
19.....	156	45	23,069.15	60	56	74
20.....	160	45	22,684.88	61	36	07
21.....	161	45	23,085.65	60	05	70
22.....	162	45	23,233.71	60	20	62
Total.....				1,585	41	70
Meridian and standard lines.....				46	35	06
Township lines.....				177	66	10
Grand total.....			406,705.08	1,809	62	86

RECAPITULATION.

Number of acres surveyed since last report	406,705.08
Number of acres previously reported.....	39,282,418.00
Total number of acres surveyed to date.....	39,689,123.08

J. H. BAKER,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Saint Paul, Minn., August 31, 1878.

F.—Estimates of appropriations required for continuing the public surveys in Minnesota for the fiscal year ending June 30, 1880.

For field work.

For meridian and standard lines, 242 miles, at \$15 per mile.....	\$3,630 00
For township lines, 600 miles, at \$12 per mile.....	7,200 00
For subdividing 25 townships, estimated 1,875 miles, at \$10 per mile.....	18,750 00
Total for field work	29,580 00

Salaries.

For salary of surveyor general	\$2,000 00
For salary of chief clerk.....	1,500 00
For salaries of three draughtsmen.....	3,600 00
For salaries of three transcribing clerks	3,400 00
Total for salaries.....	10,500 00

Incidentals.

For pay of messenger, books, printing, binding, stationery, and other necessary expenses	\$1,500 00
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J. H. BAKER,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Saint Paul, Minn., August 31, 1878.

G.—Statement showing the amount of salaries paid surveyor general and clerks for the fiscal year ending June 30, 1878.

DR.			CR.		
Date.		Amount.	Date.		Amount.
1877.			1877.		
Sept. 30	To salaries for first quarter...	\$1,805 00	Mar. 3	By appropriation	\$7,000 00
Dec. 31	To salaries for second quarter.	1,805 00			
1878.					
Mar. 31	To salaries for third quarter..	1,805 00			
June 30	To salaries for fourth quarter.	1,584 88			
	To balance	12			
		7,000 00			7,000 00

J. H. BAKER,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Saint Paul, Minn., August 31, 1878.

H.—Statement of the incidental expenses of the office for the fiscal year ending June 30, 1878.

DR.			CR.		
Date.		Amount.	Date.		Amount.
1877.			1877.		
Sept. 30	For the first quarter.....	\$216 75	Mar. 3	By appropriation	\$1,500 00
Dec. 31	For the second quarter	195 73			
1878.					
Mar. 31	For the third quarter.....	234 73			
June 30	For the fourth quarter	303 05			
	To balance	549 74			
		1,500 00			1,500 00

J. H. BAKER,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Saint Paul, Minn., August 31, 1878.

I.—Statement showing condition of appropriation for surveys of public lands in Minnesota for the fiscal year ending June 30, 1878.

DR.			CR.		
Date of account.	Deputies.	Amount.	Date.		Amount.
1877.			1877.		
Oct. 8	Eli W. Griffin	\$444 66	Mar. 3	By appropriation	\$12,400 00
Nov. 27	H. S. & F. D. Howe	907 14		Amount assigned to Min-	
Dec. 17	H. S. & F. D. Howe	1,278 00		nesota, June 29, 1877.	
1878.					
Jan. 8	Stuntz & Hamilton	997 52			
18	H. S. & F. D. Howe	825 92			
28	Ashbel Ingerson.....	1,260 10			
Feb. 8	Stuntz & Hamilton	794 35			
19	H. S. & F. D. Howe	1,292 68			
27	H. S. & F. D. Howe	455 37			
April 13	Stuntz & Hamilton	2,929 03			
July 17	Stuntz & Hamilton	170 81			
17	Stuntz & Hamilton	1,015 74			
	To balance	28 68			
		12,400 00			12,400 00

J. H. BAKER,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Saint Paul, Minn., August 31, 1878.

D.—Report of the surveyor general of Dakota.

UNITED STATES SURVEYOR GENERAL'S OFFICE,
Yankton, Dak., August 24, 1878.

SIR: In compliance with instructions contained in your letter of April 1, 1878, I have the honor to transmit herewith my annual report, in duplicate, of surveying operations in this district for the fiscal year ending June 30, 1878.

FIELD WORK.

Surveys to the amount of \$17,703.08 were executed, covering 7 miles 30 chains and 71 links of standard lines; 244 miles 17 chains and 52 links of township lines; 2,653 miles 21 chains and 71 links of section and meander lines, comprising an area of 938,086.79 acres, and making a total of 18,738,760.20 acres of surveyed land in the Territory to this date, exclusive of Indian and military reservations, town sites, and mining claims.

Four town sites have been surveyed and platted during the fiscal year, viz:

Deadwood, Lawrence County, containing an area of 745.45 acres.

Ingleside, Lawrence County, containing 28.64 acres, but included within the surveyed boundaries of Deadwood.

Oro, Lawrence County, containing 320 acres.

Rapid City, Pennington County, containing 640 acres.

These town sites are all located in the mining regions of the Black Hills.

There have also been surveyed 38 placer-mining claims and 50 lode claims.

OFFICE WORK.

Field notes have been transcribed and diagrams made of the surveys described in schedule G (herewith), and duplicate field notes, plats, and diagrams transmitted to the General Land Office. Triplicate plats and descriptive lists of the surveys executed during the year have been transmitted to the proper local land offices. The original notes of these surveys have been securely bound and indexed.

One copy of the field notes and four copies each of the plats of 88 mining claims have also been made, and the proper number transmitted to the local land office and claimants.

The necessary labor incident to the proper organization of a mining department, hitherto unknown to this office, has been very great and annoying, owing to causes beyond my immediate control, and the consequent drain upon the incidental fund has not been compensated by a corresponding increase of appropriation for this department.

PROPOSED SURVEYS.

In calling your attention in this place to my estimate for surveys in this district for the fiscal year ending June 30, 1880, I feel it my duty to give some further reasons for those estimates.

During the past six or eight months I have received numerous letters and petitions from persons living or proposing to locate upon unsurveyed lands, asking that the government surveys be extended over the same. (In one case a petition signed by 59 "actual settlers on unsurveyed lands"; in another, a petition signed by 23 "settlers on unsurveyed lands.") So far as the appropriation for the present fiscal year enabled me to do so, I have met this demand by contracting for surveys at points where they seemed to be most needed; nevertheless, I have been obliged to reply to many that public surveys would not reach their localities the present season. The number of persons located upon unsurveyed land in the Territory will largely increase during the present fiscal year. I am led to this opinion from experience in the past and the conditions inducing immigration which prevail at the present time.

During the fiscal year ending June 30, 1878—

	Acres.
The local land officers in the Territory disposed of about	1,461,808.00
The Winona and Saint Peter Railroad Company sold	21,270.06
The Northern Pacific Railroad Company sold	600,000.00
Total public and railroad lands	2,083,078.06
Add to this, estimated number of acres of unsurveyed land located upon by settlers	82,000.00
Which gives	2,165,078.06

as the total number of acres taken by actual settlers during the last fiscal year, not including the Black Hills country with its 25,000 inhabitants, where no surveys, except mining claims and town sites, have been made.

The total number of acres surveyed in the Territory during the corresponding fiscal year was 938,086.79, which shows that 1,226,991.27 more acres were taken by actual settlers last year than were surveyed during the same time. This disproportion will be still greater (to the detriment of the best interests of the government and the Territory) the present fiscal year. It is a wise policy to survey much more land than will probably meet any immediate demand, for the reason that the pioneers, although having the choice of a large area, will, by the improvement of their homesteads, greatly enhance the value of adjoining lands, and make them more desirable. This is shown by the rapidly-increasing population of the older counties, although in many instances better lands can be had farther to the front.

In the hope of a more general response than has proved to be the case, inquiries were sent out from this office to the various counties, and a summary of replies from eleven out of thirty-six counties is given.

Ten counties report an average increase of 50 per cent. over 1877 in the number of acres under cultivation. The increase in quantity of wheat raised was 48 per cent., while the average yield per acre fell from 18.4 bushels in 1877 to 17.1 in 1878. It should be stated, however, that of the 10 counties reporting, 7 are located in the southeastern portion of the Territory (the older settled part), where the wheat crop was more seriously affected by the extreme heat and excessive rains of July, than was the case in the more northern portions, where the yield per acre and quality are believed to be fully up to that of 1877. A moderate estimate of the wheat crop of the Territory for the present year is 8,000,000 bushels. Corn: The average increase in quantity is 175 per cent. 50 to 75 bushels being estimated as the average product per acre. Seven counties report an average increase of 70 per cent. in quantity of barley, and a decreased yield per acre from 27.5 bushels to 26.2 as compared with 1877. Six counties report an average increase of 100 per cent. in quantity of rye, and an average yield of 23 bushels per acre as against 17 bushels in 1877. Eight counties report an aggregate product of 760,000 bushels of oats, an increase of 70 per cent. over 1877; the average yield per acre was 51.6 bushels.

The aggregate population of 11 counties is 29,483, an increase over 1877 of 76.5 per cent. The per cent. of increase would be much larger did it include the newer counties and those unorganized.

No mention is made here of the number of acres devoted exclusively to grazing because of insufficient statistics; but the number of cattle is known to be very large, and constantly increasing by natural accretion and driving in of new herds.

Owing to the excellent herd law in operation throughout the Territory, farmers are saved the heavy and useless expense of fence building, an important item to the settler with limited capital.

Seven new counties have been organized since my last report.

The foregoing figures, imperfect as they are, will still serve to show the great advance Dakota is making in agriculture and population.

THE BLACK HILLS.

The development of the mineral and agricultural resources of this portion of the Territory has proceeded with astonishing rapidity. The population is rapidly crystallizing into orderly business communities, destined to add immensely to the material and social prosperity of the Territory. I am indebted to United States Deputy Mineral Surveyor Henry C. Rohleder, esq., of Deadwood, one of its oldest settlers, for the following statement of the characteristics and products of that section:

"The general topographical feature or character of the country is mountainous, not that the hills rise to any great height above the creek or gulch levels, but that they in nearly all cases rise very abruptly, a fair average being about 40° from a vertical line. In most cases they are covered with a heavy growth of pine and spruce, the pine greatly predominating. While it cannot be said that the timber will in quality equal that of the locality of Wisconsin, Minnesota, or the Northwestern States, it still furnishes an excellent quality of lumber of all kinds and sizes. In character it resembles the pine of the extreme Eastern and Southern States. The bed rocks will generally be found to be either granite or slate, and both on the hills and in the gulches of the north and west is quite 'shallow,' but increases in depth to the south and east.

"QUARTZ.

"The character of the quartz of the country is that known as 'free milling,' being almost entirely free from the baser metals, refractory ores being so seldom met with that they are almost unknown; consequently, the expense of working is so light that it is rendered profitable to work ores of such low grade that in nearly if not all other mining countries they would be considered worthless. Probably a fair average estimate of the value of our ores would be about \$12 per ton, yet instances of veins running as high as from \$100 to \$200 per ton are of almost daily occurrence. While the

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development of the mines thus far is comparatively light, yet enough has been done in that line to fully demonstrate the fact of the ledges being 'fissure-veins,' the quartz invariably increasing in value in proportion to the depth attained.

"Not included in the above description are a class of mines known as 'cement-beds' or deposits, the gold-bearing rock being a conglomerate cement, quite as hard as the quartz, and of a uniform consistency. This cement is generally much richer in gold than the quartz. Many have claimed that the working of these deposits would soon exhaust them; such predictions as yet have in no case been verified, the reverse in many instances proving to be a fact, as the working of these beds to any extent has generally disclosed the gold-bearing vein, which has been entirely hidden from view by the cement itself.

"The theory that the quartz that could be made to pay was confined to a very narrow and short strip of territory known as the 'belt' must have had its origin in the failure of many to realize their visionary dreams of fabulous wealth to be obtained without effort on their part.

"Though it is but a very short time since many were found to advocate this theory, it has now become obsolete and a thing of the past, and the fact that the rich quartz is not confined to this immediate vicinity, but exists to the north, east, south, and west, and at distances as great as 25 miles, is daily being proven by the most reliable of all tests, that of actually working it through the mills.

"SILVER.

"Thus far the discoveries made in silver seem to be confined to the Bear Butte district, situated about 8 miles to the southeast, and Bald Mountain, about 6 miles to the southwest of Deadwood. This silver ore is of the two kinds known as 'dry rock' and 'galena.' Assays of these ores not unfrequently give as a result as high as 600 ounces per ton. The fact that the shipping of large quantities of these ores to both Omaha and Denver for reduction has yielded to the mine-owners a large profit on their shipments is evidence of the richness of our 'silver districts.' The fact that but a short time will now elapse before the silver mining will prove itself to be an industry equal to the gold-mining interests is one now fully admitted by all well-informed persons of this country.

"PLACER.

"This important branch of mining, while hardly second in importance to the quartz interest, is one of which reliable information or statistics is exceedingly difficult to obtain, as the fortunate discoverers use every means to keep their discoveries a secret, excepting, perhaps, their own personal friends, and also show a disposition to underestimate rather than overrate the gold yield of their claims. The most reliable information that can be gathered as to their past yield is from the banking firms of this city, who base their estimates upon the amount of dust passed through the banks.

Deadwood Creek	\$1, 775, 000
Whitewood Creek	750, 000
Potato, Bear, Mallory, Iron, and Sand	350, 000
Nigger Hill, Rockerville (dry)	230, 000
Total	3, 105, 000

"None of this ground having as yet been worked out, while many claims on the above creeks have not been touched, makes it not unreasonable to expect an amount much greater than the above to be yielded before they are declared to be 'petered.' An industry that bids fair to become very important in this branch of mining is the hydraulic system employed on the hill-sides, a class of work that is yet in its infancy. The great number of hill-side as well as gulch claims that remain untouched warrants the assertion that for years to come the placer-mining interests will be one of the greatest importance. On January 1, 1877, the first stamp of the then only stamp mill (a 10-stamp mill) in this country was let full upon the quartz of the Black Hills. That the experiment proved an entire success is evidenced by the fact that mill after mill followed and was erected here, until to-day we have the ceaseless roar of 750 stamps in constant operation, each crushing on an average $1\frac{1}{2}$ tons of rock per diem.

"With but the one 10-stamp mill at the beginning of the year 1877 January of 1878 shows a yield of nearly \$4,000,000, and this during a period when 'dust' was the currency of the country, when many thousands of dollars, not included within the above estimates, changed hands in the way of trade, rendering it impossible to estimate the actual amount of gold produced.

"With the increased facilities of this year for working the mines, it would naturally follow that the gold yield should be correspondingly increased.

"When we consider that \$400,000 is a very liberal estimate to place upon the machinery now in the Hills, and compare it with the results thus far obtained, the fact becomes patent to all that the Black Hills have ceased to be an experiment, and have proven that they are, if not the richest, one of the richest mining countries ever known.

"COAL.

"On the extreme western boundary of the Territory, divided by the line between Dakota and Wyoming, lie the coal fields. From the fact that but little has as yet been done on them for their development, not much can be said of them or their extent. But this much is known by actual test of comparatively large quantities of the coal in the furnaces of the mills, that all that is necessary to make it by far the most economical fuel that can be used here is some means of transportation more certain than the wagons now used.

"VALLEYS.

"Lying contiguous to our mines, and in some cases extending far among them, are many beautiful and well-watered valleys, which experiment has proven to be arable land, and capable of producing all kinds of vegetables and all the smaller cereals; as to its adaptability to the raising of corn nothing is known, as no experiments of note in that line have as yet been made.

"While the crops of this year are pronounced equal to the more eastern counties, they have been produced without the aid of the irrigating ditch. The valleys are all claimed and settled, hardly an acre remaining unclaimed, and the amounts of money already expended by the 'ranchmen' in improvements of all kinds prove them to be what they claim they are, permanent and actual settlers, who only await the extension of the public surveys to enable them by a compliance with the laws to obtain titles to the properties they have already expended much time and money to improve."

As to the necessity of extending the public surveys through the mining counties nothing need be said, as such necessity daily manifests itself in the annoying and complicating conflicts in the location of mining claims, caused by the very unreliable and only means that exist for determining the locus of such claims.

I conclude with the following extracts taken from a letter written to this office by James B. Power, esq., general agent land department Northern Pacific Railroad Company, giving some valuable information in relation to the settlement of the lands owned by that company, and clearly showing the necessity for a large amount of surveys in Northern Dakota at the earliest possible moment:

"To the 30th of June, 1878, our company has sold of Dakota lands 1,292,655.81 acres. The average holdings are less than one section each. These sales have been about as follows: Some 45 townships in Cass County, only some 4 townships now vacant in that county; 20 townships in Traill County; 8 townships in Richland County; 20 townships in Barnes County; 10 townships in Stutsman County; 2 townships in Kidder County; 5 townships in Burleigh County.

"The demand for lands now is principally in the last four named counties, in each of which a large amount of new ground has been broken up this year, and in many instances we have lost valuable settlers by reason of the want of public surveys in these counties. * * * The sales for the next year will be even greater (than 600,000 acres). The good crops of Northern Dakota, so far in advance of localities farther south, both in matter of quality and quantity, will add largely to the well-established reputation of the country, and we can reasonably expect an immigration much greater than that of last year.

"Our company will have at the close of this season completed entire the examination of all the townships inside of the limits of the grant that have been subdivided by the government, and if the demand for land continues as it has in the past the field for selection will by the end of next year be entirely gone, unless a large number of townships are surveyed by the government next year.

"To meet the probable wants of the people it is safe to estimate that there should be subdivided all the unsurveyed townships in Traill and Richland Counties, to the 40-mile limit in Ransom, all in Stutsman and Kidder, and in Burleigh County for at least 20 miles each side of the road."

Very respectfully, your obedient servant,

HENRY ESPERSEN,
United States Surveyor General.

Hon. J. A. WILLIAMSON,
Commissioner General Land Office, Washington, D. C.

ESTIMATES.

A.—*Estimates of appropriations required for continuing the public surveys in Dakota: For salary of surveyor general and pay of clerks in his office, as per act of Congress, March 2, 1861, and for the incidental expenses of the office, for the fiscal year ending June 30, 1880.*

SURVEYS.

For surveying standard lines.....	\$1,620 00
For surveying township lines.....	19,000 00
For surveying and subdividing townships.....	105,000 00
Total for surveys.....	125,620 00

For salary of surveyor general.....	2,000 00
For pay of clerks in his office.....	9,500 00
For rent of office, fuel, books, stationery, and other incidental expenses..	2,700 00

HENRY ESPERSEN,
United States Surveyor General.

UNITED STATES SURVEYOR GENERAL'S OFFICE,
Yankton, Dak., July 22, 1878.

B.—Statement showing the extent and cost of surveys executed in Dakota during the fiscal year ending June 30, 1878.

Number of contract.	Date.	Name of deputy surveyor.	Character and locality of work, all west of the fifth principal meridian and north of base-line.	Standard lines.	Township lines.	Section and mean der lines.	Total cost of surveys.	Remarks.
163	1877. July 6	Charles Scott	Exterior township and range lines of townships 150 to 156, inclusive, range 53; townships 150 to 152, inclusive, range 54; townships 149 to 152, inclusive, range 55; subdivision of townships 150, 151, and 152 north, range 54; townships 154, 155, and 156 north, range 53; townships 157, 158, 159, and 160 north, range 52.	<i>Miles. chs. lks.</i> 5 68 84	<i>Miles. chs. lks.</i> 156 03 62	<i>Miles. chs. lks.</i> 604 07 99	\$4,775 54	Plats and field notes transmitted, and accounts audited and closed.
164	July 13	George G. Beardsley....	Subdivision of townships 150, 151, 152, and 153 north, range 53, and townships 156, 157, 158, 159, and 160 north, ranges 50 and 51.	.....	21 10 90	628 34 61	3,918 53	
165	July 6	Edwin H. Van Antwerp.	Subdivision of township 115 north, range 62; townships 113, 114, 115, and 116 north, range 63; townships 110, 111, 112, and 113 north, range 64, and township 108, range 65.	.....	.....	602 29 65	3,614 22	
166	July 6	Higbee & Marshall	Subdivision of township 120 north, range 60; townships 117, 118, 119, and 120 north, range 61, and townships 116, 117, and 118 north, range 62.	.....	.....	480 55 57	2,884 17	
167	Aug. 27	Horace J. Austin	All the unsurveyed exterior and subdivision lines of fractional townships 121, 122, 123, and 124 north, range 54; townships 122, 123, and 124 north, range 55, and west boundary of township 121 north, range 55.	1 41 87	67 04 00	337 53 89	2,510 62	
Total.....				7 30 71	244 17 52	2,653 21 71	17,703 08	

HENRY ESPERSEN,
United States Surveyor General.

UNITED STATES SURVEYOR GENERAL'S OFFICE,
Yankton, Dak., August 14, 1878.

C.—Statement of the condition of appropriation for survey of public lands in Dakota for the fiscal year ending June 30, 1878.

Dr. Cr.

Date of account.	No. of contract.	Contractors.	Amount.	Date.	Appropriation.	Amount.
1877. 2 Oct. 1	163	Charles Scott	\$1,799 12	1877. June 29	By amount assigned to Dakota by the Secretary of the Interior for the survey of public lands for the fiscal year ending June 30, 1878	\$17,700 00
1878. 1 Mar. 3	163	do	1,376 76			
1877. 2 Oct. 1	163	do	1,460 34	1878. July 6	By balance	3 08
1878. 2 Feb. 21	164	George G. Beardsley	139 32			
1877. 2 Oct. 1	164	do	1,084 17			
1878. 2 Feb. 21	164	do	1,182 23			
1877. 2 Oct. 1	164	do	1,521 56			
1878. 2 Feb. 21	164	do	107 28			
1877. 2 Oct. 1	164	do	23 29			
1878. 2 Feb. 21	165	Edwin H. Van Antwerp	719 38			
1877. 2 Oct. 1	165	do	1,089 03			
1878. 2 Feb. 21	165	do	1,805 81			
1877. 2 Oct. 1	166	Higbee & Marshall	1,439 08			
1878. 2 Feb. 21	166	do	1,445 09			
1877. 2 Oct. 1	167	Horace J. Austin	2,510 62			
1878. 2 Feb. 21	167	do	17,703 08			17,703 08

HENRY ESPERSEN,
United States Surveyor General.UNITED STATES SURVEYOR GENERAL'S OFFICE,
Yankton, Dak., August 24, 1878.

D.—Statement of the condition of fund created by special deposits for the survey of public lands and office work in the surveyor general's office of Dakota during the fiscal year ending June 30, 1878.

Dr.

Cr.

Date.	Name of depositor.	For the survey of—	For office work.	For field work.	Date.	Amounts drawn.	For office work.	For field work.
1877. Nov. 28	George W. Brizle...	The town site of Oro, Lawrence County, Dakota.....	\$40 00	\$200 00	1878. Apr. 10	By amount paid J. D. McIntyre for survey of the town site of Oro.....	.....	\$200 00
1878. Jan. 15	M. Newbanks	The town site of Rapid City, Pennington County, Dakota.....	30 00	150 00	May 16	By amount paid J. D. McIntyre for survey of the town site of Rapid City.....	.....	150 00
Feb. 5	C. H. Sheldon.....	The town site of Ingleside, Lawrence County, Dakota.....	30 00	50 00	May 17	By amount paid J. D. McIntyre for survey of the town site of Ingleside.....	.....	50 00
Feb. 5	Joseph Daniels.....	The unsurveyed portion of township 164 north, range 54 west, fifth principal meridian.....	10 00	20 00	June 28	By amount paid Robert Lynn for completing township 164 north, range 54 west.....	.....	18 44
Mar. 6	J. A. Nye.....	The town site of Deadwood, Lawrence County, Dakota.....	30 00	100 00	June 29	By amount paid J. D. McIntyre for survey of the town site of Deadwood.....	.....	100 00
May 20	J. H. White	The unsurveyed portion of fractional township 164 north, range 51 west, fifth principal meridian.....	10 00	15 00	June 30	By amount paid for clerical work.....	\$139 33	.....
					June 30	Unexpended balance.....	10 67	16 56
			150 00	535 00			150 00	535 00

UNITED STATES SURVEYOR GENERAL'S OFFICE,
Yankton, Dak., August 24, 1878.

HENRY ESPERSEN,
United States Surveyor General.

G.—A list of townships surveyed during the fiscal year ending June 30, 1878, with area of each, showing date of transmission of plats to local land offices.

Number.	Township north.	Range west.	Area.	Plats and descriptive lists, when transmitted.	Land district.
			<i>Acres.</i>		
1.....	156	50	250. 27	July 8, 1878	Fargo, Dak.
2.....	157	50	1, 429. 16	May 6, 1878	Do.
3.....	158	50	906. 08	May 6, 1878	Do.
4.....	159	50	789. 47	May 6, 1878	Do.
5.....	160	50	6, 385. 00	May 6, 1878	Do.
6.....	156	51	21, 484. 92	May 6, 1878	Do.
7.....	157	51	22, 610. 19	May 6, 1878	Do.
8.....	158	51	22, 326. 92	May 6, 1878	Do.
9.....	159	51	21, 838. 86	May 6, 1878	Do.
10.....	160	51	23, 094. 98	May 6, 1878	Do.
11.....	157	52	22, 418. 44	May 13, 1878	Do.
12.....	158	52	21, 807. 95	May 13, 1878	Do.
13.....	159	52	22, 187. 35	May 13, 1878	Do.
14.....	160	52	22, 472. 19	May 13, 1878	Do.
15.....	150	53	23, 056. 80	May 6, 1878	Do.
16.....	151	53	23, 100. 80	May 6, 1878	Do.
17.....	152	53	23, 338. 12	May 6, 1878	Do.
18.....	153	53	23, 100. 08	May 6, 1878	Do.
19.....	154	53	23, 102. 23	May 13, 1878	Do.
20.....	155	53	23, 096. 36	May 13, 1878	Do.
21.....	156	53	23, 152. 69	May 13, 1878	Do.
22.....	150	54	22, 930. 12	May 13, 1878	Do.
23.....	151	54	22, 949. 55	May 13, 1878	Do.
24.....	152	54	23, 289. 82	May 13, 1878	Do.
25.....	121	54	12, 104. 37	Apr. 10, 1878	Yankton, Dak.
26.....	122	54	7, 986. 18	Apr. 10, 1878	Do.
27.....	123	54	4, 277. 85	Apr. 10, 1878	Do.
28.....	124	54	1, 263. 74	Apr. 10, 1878	Do.
29.....	122	55	16, 735. 78	Apr. 10, 1878	Do.
30.....	123	55	18, 032. 49	Apr. 10, 1878	Do.
31.....	124	55	21, 505. 81	Apr. 10, 1878	Do.
32.....	120	60	22, 850. 82	May 21, 1878	Springfield, Dak.
33.....	117	61	23, 032. 32	May 21, 1878	Do.
34.....	118	61	23, 037. 32	May 21, 1878	Do.
35.....	119	61	22, 992. 54	May 21, 1878	Do.
36.....	120	61	22, 673. 36	May 21, 1878	Do.
37.....	115	62	22, 926. 22	Apr. 10, 1878	Do.
38.....	116	62	23, 076. 41	May 21, 1878	Do.
39.....	117	62	23, 078. 53	May 21, 1878	Do.
40.....	118	62	23, 056. 50	May 21, 1878	Do.
41.....	113	63	23, 040. 61	Apr. 10, 1878	Do.
42.....	114	63	23, 067. 83	Apr. 10, 1878	Do.
43.....	115	63	22, 991. 21	Apr. 10, 1878	Do.
44.....	116	63	23, 505. 89	Apr. 10, 1878	Do.
45.....	110	64	22, 975. 14	Aug. 27, 1877	Do.
46.....	111	64	22, 967. 41	Apr. 10, 1878	Do.
47.....	112	64	23, 455. 71	Apr. 10, 1878	Do.
48.....	113	64	22, 936. 81	Apr. 10, 1878	Do.
49.....	108	65	22, 397. 59	Aug. 27, 1877	Do.

RECAPITULATION.

Total number of acres surveyed in fiscal year ending June 30, 1878.....	938, 086. 79
865 townships previously reported.....	17, 800, 673. 41
Total number of acres surveyed.....	18, 738, 760. 20

HENRY ESPERSEN,
United States Surveyor General.

UNITED STATES SURVEYOR GENERAL'S OFFICE,
Yankton, Dak., August 24, 1878.

H.—Statement of the condition of the fund created by individual deposits for office work in connection with the survey of mining claims.

DR.

CR.

Date.		Amount.	Date.		Amount.
1877. Sept. 30	To amount paid mineral clerk, first quarter	\$330 00	1878. June 30	By special deposits to date..	\$2, 615 00
Dec. 31	To amount paid mineral clerk, second quarter	390 00			
1878. Mar. 31	To amount paid mineral clerk, third quarter	385 00			
June 30	To amount paid mineral clerks, fourth quarter	600 00			
June 30	Unexpended balance	910 00			
	Total	2, 615 00		Total	2, 615 00

HENRY ESPERSEN,
United States Surveyor General.

UNITED STATES SURVEYOR GENERAL'S OFFICE,
Yankton, Dak., August 24, 1878.

I.—Statement showing the condition of mining surveys and special deposits for office work in connection with the same, at the close of the fiscal year ending June 30, 1878.

Number of survey.	Name of mine.	Where located.		Name of claimant.	Amount of deposit.	Name of surveyor.	Survey ordered.	Plat and field notes returned.	Survey approved.	Remarks.
		District.	County.							
37	Placer claim	Lost	Lawrence	R. D. Darlington	\$30 00	J. D. McIntyre	June 30, 1877	Aug. 22, 1877	Sept. 29, 1877	Plats, &c., transmitted to land office.
38	do	Whitewood	do	Charles Spencer et al	30 00	H. C. Rohleder	July 13, 1877	Aug. 9, 1877	Sept. 14, 1877	Do.
39	Rose lode	do	do	Frank Raborg and George Lee.	30 00	do	July 17, 1877	Aug. 17, 1877	Sept. 9, 1877	Do.
40	Placer claim	Lost	do	Moses Pierce et al	30 00	J. D. McIntyre	July 30, 1877	Aug. 22, 1877	Sept. 14, 1877	Do.
41	do	do	do	do	30 00	do	July 30, 1877	Aug. 22, 1877	Sept. 19, 1877	Do.
42	do	do	do	James P. Welch	30 00	do	July 31, 1877	Aug. 22, 1877	Sept. 29, 1877	Do.
43	do	do	do	H. S. Ireton	30 00	do	July 31, 1877	Aug. 22, 1877	Sept. 29, 1877	Do.
44	do	Bucks	do	William H. Clagett et al	30 00	H. C. Rohleder	Aug. 1, 1877	Feb. 8, 1878	Mar. 8, 1878	Do.
45	do	Lost and White-wood.	do	Robert Hawke	30 00	J. D. McIntyre	Aug. 6, 1877	Sept. 1, 1877	Oct. 9, 1877	Do.
46	Chief of the Hills lode.	Whitewood	do	Isaac W. French et al	30 00	do	Aug. 8, 1877	Oct. 9, 1877	Oct. 18, 1877	Do.
47	Ella lode	do	do	A. Sullivan et al	30 00	H. C. Rohleder	Aug. 8, 1877	Oct. 17, 1877	Oct. 20, 1877	Do.
48	Durango lode	do	do	A. McClurg et al	30 00	do	Aug. 8, 1877	Oct. 17, 1877	Oct. 26, 1877	Do.
49	Hidden Treasure lode.	do	do	Black Hills Gold Mining Company.	30 00	J. D. McIntyre	Aug. 13, 1877	Sept. 29, 1877	Oct. 15, 1877	Do.
50	Highland Chief lode.	do	do	M. Cavanaugh	30 00	do	Sept. 13, 1877	Oct. 26, 1877	Nov. 8, 1877	Do.
51	Placer claim	Lost	do	G. M. Venable et al	30 00	do	Sept. 18, 1877	Nov. 7, 1877	Nov. 24, 1877	Do.
52	do	do	do	Cunningham, Dorrington & Co.	30 00	William A. Hendrickson.	Sept. 24, 1877	Oct. 23, 1877	Nov. 3, 1877	Do.
53	do	do	do	Robert Hawke	30 00	J. D. McIntyre	Sept. 25, 1877	Oct. 26, 1877	Nov. 12, 1877	Do.
54	do	do	do	do	30 00	do	Oct. 1, 1877	Nov. 7, 1877	Nov. 30, 1877	Do.
55	do	do	do	W. S. Beatty and N. Lancaster.	30 00	do	Oct. 11, 1877	Nov. 14, 1877	Dec. 7, 1877	Do.
56	Golden Star lode.	Whitewood	do	Thomas Mallory et al	30 00	do	Sept. 29, 1877	Oct. 26, 1877	Nov. 30, 1877	Do.
57	Placer claim	do	do	Beard, Judd, and Thayer	30 00	Thos. H. White	Oct. 19, 1877	Dec. 4, 1877	Dec. 24, 1877	Do.
58	do	do	do	Beard, Spencer, and Hall	30 00	do	Oct. 19, 1877	Dec. 4, 1877	Dec. 31, 1877	Do.
59	Fairview lode.	do	do	Frank J. Norton, et al	30 00	H. C. Rohleder	Oct. 23, 1877	Dec. 8, 1877	Dec. 12, 1877	Do.
60	Great Western lode.	do	do	J. Gibbens et al	30 00	do	Oct. 23, 1877	Dec. 8, 1877	Dec. 18, 1877	Do.
61	Placer claim	Summit	do	Antone Grundy et al	30 00	J. I. Clapp	Nov. 10, 1877	Dec. 26, 1877	Jan. 19, 1878	Do.
62	do	Lost	do	Charles Noyes et al	30 00	do	Nov. 10, 1877	Jan. 8, 1878	Jan. 26, 1878	Do.
63	Gustin lode	Whitewood	do	George A. Springer	30 00	H. C. Rohleder	Nov. 15, 1877	Dec. 18, 1877	Jan. 5, 1878	Do.
64	Placer claim	Lost	do	Paul Geniges et al	30 00	R. H. Kello	Nov. 20, 1877	Dec. 6, 1877	Jan. 12, 1878	Do.
65	Emma lode	Whitewood	do	John Flaherty et al	30 00	J. D. McIntyre	Nov. 28, 1877	Mar. 6, 1878	Mar. 15, 1878	Do.
66	Placer claim	Lost	do	Golden Gate Mining Co.	25 00	do	Nov. 28, 1877	Dec. 28, 1877	.....	Returned for amended survey.
67	Father Desmet lode.	Whitewood	do	do	25 00	do	Nov. 28, 1877	Dec. 28, 1877	June 18, 1878	Plats, &c., transmitted to land office.
68	Justice lode	do	do	do	25 00	do	Nov. 28, 1877	Dec. 28, 1877	June 18, 1878	Do.

No.	Locality	Placer claim	Owner	Amount	Agent	Date	Remarks
69	Belcher lode	do	do	25 00	do	Nov. 28, 1877	Do.
70	Golden Gate lode	do	do	25 00	do	Nov. 28, 1877	Do.
71	Placer claim	do	J. S. Anthony and G. W. McCawley	30 00	H. C. Rohleder	Dec. 6, 1877	Do.
72	do	do	W. Stillwell et al	30 00	J. I. Clapp	Dec. 17, 1877	Do.
73	Merritt lode No. 1	do	Fred T. Evans et al	30 00	do	Dec. 17, 1877	Do.
74	Placer claim	do	do	30 00	do	do	Error in application for survey.
75	do	do	John McCrady and C. C. Dow	30 00	J. I. Clapp	Jan. 5, 1878	Plats, &c., transmitted to land office.
76	do	do	Sol Star and J. A. Harding	30 00	H. C. Rohleder	Jan. 10, 1878	Do.
77	do	do	Lewis C. Richards	30 00	Thos. H. White	Jan. 10, 1878	Plats and field notes not returned.
78	do	do	R. J. Bard and F. C. Ayres	30 00	J. D. McIntyre	Jan. 5, 1878	Plats, &c., transmitted to land office.
79	Omega lode	do	Alpha Gold Mining Co.	30 00	Hector Bruce	Jan. 15, 1878	Do.
80	Bobtail lode	do	John Noonan	30 00	R. H. Kello	Jan. 17, 1878	Do.
81	Placer claim	do	James Tanner and J. Stake	30 00	J. D. McIntyre	Jan. 20, 1878	Do.
82	Marion lode	do	D. McLaughlin et al.	30 00	do	Jan. 29, 1878	Returned for amendment.
83	Placer claim	do	J. Werthiemer et al.	30 00	J. I. Clapp	Feb. 1, 1878	Plats, &c., transmitted to land office.
84	Whale lode	do	F. C. Ayres et al.	30 00	J. D. McIntyre	Feb. 5, 1878	Do.
85	Nevada lode	do	J. H. Creighton	30 00	do	Feb. 5, 1878	Do.
86	Placer claim	do	E. Welch et al.	30 00	H. C. Rohleder	Feb. 5, 1878	Do.
87	do	do	William Lardner et al.	30 00	Hector Bruce	Feb. 5, 1878	Do.
88	El Refugio lode	do	H. E. Pickett et al.	30 00	J. D. McIntyre	Feb. 13, 1878	Do.
89	Patton lode	do	H. E. Pickett et al.	30 00	H. C. Rohleder	Feb. 19, 1878	Do.
90	Pecacho lode	do	H. E. Pickett and H. F. Hale	30 00	J. D. McIntyre	Feb. 23, 1878	Do.
91	Red Coat lode	do	do	30 00	do	Feb. 23, 1878	Not \$500 improvements.
92	Wooley lode	do	do	30 00	do	Feb. 23, 1878	Plats, &c., transmitted to land office.
93	Cariboo lode	do	William Lardner et al.	30 00	J. I. Clapp	Feb. 25, 1878	Do.
94	Hardscrabble lode	do	do	30 00	do	Feb. 25, 1878	Do.
95 A. & B.	Nautilus lode and mill site.	do	M. V. Boughton and L. D. Beary.	30 00	J. D. McIntyre	Feb. 25, 1878	Plats and field notes not returned.
96	Placer claim	do	Cunningham Dorrington et al.	30 00	Hector Bruce	Feb. 27, 1878	Returned for amended survey.
97	do	do	O. P. T. Grantz et al.	30 00	Wm. L. Smith	Mar. 1, 1878	Plats, &c., transmitted to land office.
98	do	do	C. W. Mather and J. Billings.	30 00	do	Mar. 8, 1878	Plats and field notes not returned.
99	Big Missouri lode	do	H. Robinson and J. Werthiemer.	30 00	do	Mar. 21, 1878	Plats, &c., transmitted to land office.
100	May Booth lode	do	George M. Johnson et al.	30 00	H. C. Rohleder	Mar. 26, 1878	Do.
101	Buckeye lode No. 1	do	H. C. Waite et al.	30 00	do	Mar. 28, 1878	Do.
102	Buckeye lode No. 2	do	do	30 00	do	Mar. 28, 1878	Do.
103	Woodpecker lode	do	do	30 00	do	Mar. 28, 1878	Do.
104	Mammoth lode	do	H. P. Bennett et al.	30 00	Hector Bruce	Apr. 3, 1878	Do.

I.—Statement showing the condition of mining surveys, &c.—Continued.

Number of survey.	Name of mine.	Where located.		Name of claimant.	Amount of deposit.	Name of surveyor.	Survey ordered.	Plat and field notes returned.	Survey approved.	Remarks.
		District.	County.							
105	Golden Reef lode...	Whitewood...	Lawrence	John Schofield.....	\$30 00	Wm. L. Smith...	May 1, 1878	.....	.....	Plats and field notes not returned.
106	Placer claim.....	do.....	do.....	C. H. McKinnis et al.....	30 00	J. D. McIntyre..	May 1, 1878	.....	.....	Do.
107	do.....	do.....	do.....	Whitewood Hydraulic Gold-Mining Company.	30 00	do.....	May 6, 1878	June 7, 1878	.....	Do.
108	do.....	Lost.....	do.....	John W. Allen et al.....	30 00	Thos. H. White..	May 16, 1878	June 7, 1878	.....	Do.
109	do.....	do.....	do.....	J. M. Studebaker.....	30 00	J. D. McIntyre..	May 22, 1878	.....	.....	Do.
110	Nevada lode.....	Whitewood...	do.....	M. L. Conk et al.....	30 00	do.....	May 22, 1878	.....	.....	Do.
111	Ida mine No. 2.....	do.....	do.....	do.....	30 00	do.....	May 22, 1878	.....	.....	Do.
112	Homestake lode No. 2	Gordon.....	do.....	O. J. Salisbury.....	30 00	do.....	May 24, 1878	.....	.....	Do.
113	Surprise lode.....	Whitewood...	do.....	M. L. Conk et al.....	30 00	do.....	June 6, 1878	.....	.....	Do.
114	Sam's lode.....	do.....	do.....	Richard Uren.....	30 00	Thos. H. White..	June 6, 1878	June 24, 1878	.....	Do.
115	Giant lode.....	do.....	do.....	Samuel McMaster.....	30 00	J. D. McIntyre..	June 7, 1878	.....	.....	Do.
116	Gold Run lode.....	do.....	do.....	do.....	30 00	do.....	June 7, 1878	.....	.....	Do.
117	Old Abe lode.....	do.....	do.....	Old Abe Mining Company.	30 00	do.....	June 13, 1878	.....	.....	Do.
118	Alta Villa lode.....	do.....	do.....	John G. McClay et al.....	30 00	H. C. Rohleder..	June 13, 1878	.....	.....	Do.
119	Amazon lode.....	do.....	do.....	do.....	30 00	do.....	June 13, 1878	.....	.....	Do.
120	Placer claim.....	Lost.....	do.....	Charles Noyes and Towner Savage.	30 00	J. D. McIntyre..	June 17, 1878	.....	.....	Do.
121	Homestake lode.....	Whitewood...	do.....	Samuel McMaster, supt....	30 00	do.....	June 17, 1878	.....	.....	Do.
123	Chicago lode.....	do.....	do.....	C. W. Carpenter.....	30 00	H. C. Rohleder..	June 17, 1878	.....	.....	Do.
124	"I. X. L." lode.....	do.....	do.....	J. H. Creighton and D. Rathburn.	30 00	J. D. McIntyre..	June 18, 1878	.....	.....	Do.
125	Ellethea lode.....	do.....	do.....	James Carney et al.....	30 00	H. C. Rohleder..	June 29, 1878	.....	.....	Do.

HENRY ESPERSEN,
United States Surveyor General.

UNITED STATES SURVEYOR GENERAL'S OFFICE,
Yankton, Dak., August 24, 1878.

E.—Report of the surveyor general of Nebraska.

UNITED STATES SURVEYOR GENERAL'S OFFICE,
Plattsmouth, Nebr., August 26, 1878.

SIR: As requested in your circular letter E of May 1, 1878, I have the honor to submit herewith (in duplicate) my annual report of surveying operations within this district for fiscal year ending June 30, 1878.

SURVEYS.

The surveys contracted for out of apportionment made to this district of general appropriation approved March 3, 1877, have been completed during fiscal year 1878. The surveys were confined to agricultural and grazing lands, which have been largely occupied by herds of cattle and ranches, and I have reliable information that there have been within the last year at least 14,000 head of cattle taken on to the unsurveyed lands in the northwestern part of this State.

OFFICE WORK.

The field notes of 232 miles, 1 chain, and 69 links of standard and 470 miles, 11 chains, and 39 links of exterior township lines have been examined and approved, and diagrams (in duplicate) and transcripts of field notes made and transmitted to the department.

The field notes of 1,890 miles, 31 chains, and 19 links of subdivision lines have been examined and approved, and transcripts thereof and transcript plats (in triplicate) made and transmitted to the department.

Descriptive list and plats of 36 townships have also been transmitted to the proper local land offices.

A large amount of miscellaneous work has been done during the year, embracing the usual range of subjects.

PROPOSED SURVEYS.

The estimates for the surveying service in this district for fiscal year ending June 30, 1880, were prepared and transmitted July 10, 1878, in obedience to your instructions of May 1, 1878. A portion of proposed surveys have since been included in contracts for fiscal year 1879 and transmitted to you for your approval. A large portion of the proposed surveys and also of the remaining unsurveyed lands of the State are represented by my deputies and others who have knowledge of them to be good agricultural lands and well adapted to stock raising, with belts of timber of commercial value along the Niobrara River and its tributaries. With the present tide of immigration to our State and the rapidly-growing demand for the public lands by actual settlers, these lands will soon be occupied.

IMMIGRATION.

The immigration to Nebraska during the past year has been greater than ever known in the history of the State. It is estimated on good authority that not less than 100,000 persons have settled within our boundaries since the 1st of January of this year. They are, to a large extent, a good class of thrifty farmers, who occupy at once the public lands and commence to break up the prairie, build modest houses, plant groves of timber, and in a few years show well-cultivated, productive farms, such as it requires a lifetime to develop in many of the Eastern States.

STATISTICS OF 1877.

The report of the secretary of the State agricultural society for the year 1877, prepared from data obtained from all the counties in the State, may be of interest to the public, and I copy from it as follows:

Population of the State	313,841
Value of property, real and personal	\$74,453,339
Land under cultivation	acres.. 2,358,555
Horses and mules	number.. 142,741
Cattle	do.... 434,015
Sheep	do.... 99,266
Swine	do.... 497,059
Wheat	bushels.. 8,758,761
Rye	do.... 808,090
Corn	do.... 32,817,143
Barley	do.... 2,401,420
Oats	do.... 5,440,872
Buckwheat	do.... 27,532
Flaxseed	do.... 69,018
Millet and Hungarian seed	do.... 36,936
Beans	do.... 2,724
Potatoes	do.... 778,330

Onions	bushels..	10, 783
Turnips	do	51, 953
Apples	do	90, 750
Pears	do	830
Peaches	do	17, 876
Plums	do	768
Cherries	do	681
Grapes	pounds..	252, 250
Tobacco	do	22, 729
Broom-corn	tons..	685
Sorghum	gallons..	98, 973
Cultivated timber	acres..	58, 295
Hedge	miles..	5, 212

The amount of products of this year will be much greater than the above.

The small grain is all harvested at this date, and is of good quality, and greatly in excess of the yield of any previous year, while the prospect for a corn crop was never better than now.

LAND SALES.

From the following report it will be seen that Nebraska stands at the head of the list in sales of land by the various land-grant roads of the United States for the first four months of 1878, which goes to show that our State is receiving its full share of the immigration now coming westward.

Land sales of the land-grant roads of the United States for the first four months of 1878, January, February, March, and April.

	Acres.	Amount.
<i>Kansas roads.</i>		
Atchison, Topeka and Santa Fé Railroad	89, 158	\$416, 568 04
Kansas Pacific Railroad	127, 271	472, 177 89
Missouri, Kansas and Texas Railroad	38, 531	137, 393 58
Total Kansas sales	254, 960	1, 026, 139 51
<i>Nebraska roads.</i>		
Burlington and Missouri River Railroad Company in Nebraska	196, 091	1, 048, 700 32
Union Pacific Railroad	107, 900	545, 447 42
Total Nebraska sales	303, 991	1, 594, 147 74
<i>Iowa roads.</i>		
Iowa Railroad Land Company	9, 403	61, 123 60
Iowa Falls and Sioux City Railroad	8, 759	56, 937 27
Chicago, Burlington and Quincy Railroad	5, 317	76, 608 38
Total Iowa sales	23, 479	194, 669 25
<i>Michigan roads.</i>		
Jackson, Lansing and Saginaw Railroad	5, 049	41, 809 19
Flint and Pere Marquette Railroad	4, 720	39, 226 93
Grand Rapids and Indiana Railroad	15, 754	239, 742 16
Total Michigan sales	25, 523	320, 778 28
<i>Illinois roads.</i>		
Illinois Central Railroad	3, 515	35, 151 00
<i>Minnesota roads.</i>		
Saint Paul and Sioux City Railroad	33, 226	229, 556 57
Sioux City and Saint Paul Railroad	22, 788	141, 240 99
Northern Pacific Railroad	165, 564	786, 420 00
Total Minnesota sales	221, 578	1, 157, 217 56
<i>Arkansas and Missouri roads.</i>		
Saint Louis and San Francisco Railroad	14, 360	80, 367 64
Little Rock and Fort Smith Railroad	39, 438	173, 922 58
Total Arkansas and Missouri sales	53, 798	254, 290 22

APPROPRIATIONS FOR SURVEYS.

I would again respectfully recommend, as an economical measure on the part of the government, that a sufficient appropriation be made next year to complete the public surveys in this district. The amount of unsurveyed territory being comparatively small, this could be easily accomplished. The records could then be turned over to the State, as has been done in other districts, and the expense of maintaining an office for years to come would be saved to the government.

In conclusion I have the honor to call your attention to the following tabular statements accompanying this report:

A. Statement showing condition of the public surveys under appropriation approved July 21, 1876, for the survey of Fort mearney military reservation and apportionment made to this district of appropriation for fiscal year 1878.

B. Statement showing contracts entered into and condition of public surveys under apportionment made to this district of appropriation for public surveys for fiscal year 1879.

C. Statement showing the amount expended for salaries of surveyor general and clerks during fiscal year ending June 30, 1878.

D. Statement showing the amount expended for rent of office and other incidental expenses during fiscal year ending June 30, 1878.

E. Statement showing the description of land, area and number of miles, for which duplicate plats and transcripts of field notes have been transmitted to the department, and triplicate plats and descriptive lists have been furnished to the local land offices, during fiscal year ending June 30, 1878.

F. Statement showing the description and number of township plats and descriptive lists furnished the local land offices during fiscal year ending June 30, 1878.

G. Estimate of sums required for the extension of the public surveys in Nebraska for fiscal year ending June 30, 1880.

H. Estimate of sums required for office expenses for fiscal year ending June 30, 1880.

I. Statement showing the names, duties, nativity, whence appointed, term of service, and rate of compensation per annum of persons employed in the surveyor general's office of the district of Nebraska and Iowa during fiscal year ending June 30, 1878.

All of which is respectfully submitted.

JNO. R. CLARK,

Surveyor General Nebraska and Iowa.

Hon. J. A. WILLIAMSON,

Commissioner of the General Land Office,

Washington, D. C.

A.—Statement showing condition of public surveys under appropriation for the survey of Fort Kearney military reservation, and under appropriation for fiscal year ending June 30, 1878.

Name of contractor.	No. of contract.	Date.	Amount and locality.	Character of work and number of miles.			Cost per mile.	Total cost.	Amount of ap- propriation and deposit.	Condition of work.
				Standard.	Township.	Section.				
Dake & Murphy.....	105	1877. Jan. 30	All north of the base line and west of the sixth principal meridian, Nebraska (Fort Kearney military reservation).	M. chs. lks. 63 45	M. chs. lks.	M. chs. lks.	\$10	•		Surveys completed and ap- proved, and maps and transcripts transmitted.
			Second guide meridian resurvey north to south bank Platte River.	17 00 00	.....	.....	10	.....	.....	
			Second standard parallel from cor- ner to township 9, ranges 12 and 13, to west boundary of reserva- tion.	.....	23 34 65	.....	7	.....	.....	
			Exteriors of fractional townships 8 and 9, range 13; townships 7, 8, and 9, ranges 14 and 15, and township 8, ranges 16 and 17.	.....	.....	366 71 88	6	\$2,543 35	.....	
			Subdivisions of fractional townships 8 and 9, range 13; townships 7, 8, and 9, ranges 14 and 15, and town- ship 8, ranges 16 and 17.	.....	.....	.....	.....	.....	.....	
Cutler, Schlegel, Scott, and Hardin.	106	July 17	Sixth guide meridian from fifth to sixth standard parallel.	24 00 00			10			Do.
			Seventh guide meridian from fifth to sixth standard parallel.	24 00 00	.....	.....	10	.....	.....	
			Sixth standard parallel from fifth guide meridian to west boundary of State.	103 23 24	.....	.....	10	.....	.....	
			Townships 21, 22, 23, and 24, in ranges 49, 50, 51, 52, 53, 54, 55, and 56.	.....	312 60 49	.....	7	.....	.....	
			Townships 19, range 49; townships 20 and 21, range 50; townships 20 and 21, range 51; township 21, range 53; township 21, range 54; town- ships 21 and 22, range 55, and town- ships 22 and 23, range 56.	.....	.....	876 48 50	6	8,961 82	.....	
Paul & Crowell.....	107	July 30	Fifth guide meridian from eighth standard parallel to north bound- ary of State.	14 57 50			10			
			Offset.....	17 50	.....	.....	6	.....	.....	

	48 00 00	.....	.....	10	Do.
Eighth standard parallel from fourth to fifth guide meridian.	.....	133 15 95	.....	7	
Townships 33, 34, and 35, ranges 33, 34, 35, 36, and 37.	.....	60 30	.....	6	
Offsets .....	.....	.....	646 70 81	6	5, 446 73
Townships 33, 34, and 35, ranges 33, 34, 35, and 36, and township 34 in range 37.	.....	.....	.....		
Total number of miles	232 01 69	470 11 39	1, 890 31 19		
By appropriation approved July 21, 1876, for survey of Fort Kearney military reservation					\$3, 000 00
By apportionment of appropriation for surveys for fiscal year 1878					14, 400 00
By amount added to apportionment July 1, 1878					8 55
By special deposit by Union Pacific and Burlington and Missouri River Railroad Companies for field work for former years.					250 87
By special deposit by Union Pacific Railroad Company, September 11, 1877, for field work. Certificate of deposit No. 2491,					32 11
Omaha National Bank					456 65
To unexpended balance of appropriation for survey of Fort Kearney military reservation					282 98
To unexpended balance of special deposit of Union Pacific and Burlington and Missouri Railroad Companies for field work.					
Total					17, 691 53

B.—Statement showing the contracts entered into and condition of the public surveys under apportionment to this district of appropriation for fiscal year ending June 30, 1879.

Name of contractor.	No.	Date.	Character of work.	Amount and locality.	Estimated cost.	Amount of appropriation.	Condition of work.
Stephenson, McElroy & Scott.	108	1878. July 25	Exteriors	<i>All north of the base line and west of the sixth principal meridian in Nebraska.</i>	.....	By apportionment of appropriation approved June 20, 1878, for public surveys for fiscal year 1879.	Parties in the field.
			Subdivisions	Subdivision lines of twenty-four townships within district embraced in above exterior lines and including townships 33 and 35, range 37, if the same are surveyable lands, selections to be made by deputies when in the field.	\$12, 000		
			Standards	Fifth guide meridian from sixth to eighth standard parallel; seventh standard parallel from fourth to fifth guide meridian; sixth guide meridian from sixth standard parallel to north boundary of State; seventh and eighth standard parallels from fifth to sixth guide meridian.	.....		
Paul, Harvey & Stark-weather.	109	July 31	Exteriors	Townships 29, 30, 31, and 32, ranges 41, 42, 43, 44, 45, 46, 47, and 48, and townships 33, 34, and 35, ranges 41, 42, and 43.	.....		Parties in the field.
			Subdivisions	Subdivision lines of thirteen townships within district embraced in above exterior lines, selections to be made by deputies when in the field.	10, 000		
				Balance uncontracted for	500		
					22, 500	22, 500	

C.—Statement showing the amount expended for salaries of surveyor general and clerks during fiscal year ending June 30, 1878.

By appropriation for compensation of surveyor general for fiscal year 1878.	\$2,000 00	
By appropriation for salary of clerks for fiscal year 1878	3,000 00	
By special deposit made by Union Pacific Railroad Company for office work September 11, 1877, certificate of deposit No. 2491, Omaha National Bank		5 28
By balance of special deposit for office work of Union Pacific Railroad Company and Burlington and Missouri River Railroad Company, in Ne- braska, from former years		9,794 07
Sept. 30, 1877, to first quarter, ending September 30, 1877	\$1,259 20	
Dec. 31, 1877, to second quarter, ending December 31, 1877	1,340 80	
March 31, 1878, to third quarter, ending March 31, 1878	1,227 78	
June 30, 1878, to fourth quarter, ending June 30, 1878	1,172 22	
June 30, 1878, to balance special deposit unexpended	9,799 35	
Total	14,799 35	14,799 35

D.—Statement showing the amount expended for rent of office and other incidental expenses, and condition of account during fiscal year ending June 30, 1878.

By appropriation for rent of office and other incidental expenses for fiscal year 1878	\$1,500 00	
Sept. 30, 1877, to first quarter, ending September 30, 1877	\$395 56	
Dec. 31, 1877, to second quarter, ending December 31, 1877	374 33	
March 31, 1878, to third quarter, ending March 31, 1878	358 50	
June 30, 1878, to fourth quarter, ending June 30, 1878	370 50	
June 30, 1878, to balance of appropriation unexpended	1 11	
Total	1,500 00	1,500 00

E.—Statement showing the description of land, area, and number of miles for which duplicate plats and transcripts of field notes have been transmitted to the department and triplicate plats and descriptive lists have been furnished to the local land offices during fiscal year ending June 30, 1878.

Number of township.	Township north.	Range west.	Number of acres.	Amount of survey.			Number of township.	Township north.	Range west.	Number of acres.	Amount of survey.		
				Miles.	Chains.	Links.					Miles.	Chains.	Links.
1	8	13	3,674.95	25	02	86	19	35	35	10,327.78	26	30	25
2	9	13	4,355.85	32	02	67	20	33	36	23,020.40	59	77	46
3	7	14	9,121.12	24	16	58	21	34	36	23,035.40	60	00	10
4	8	14	17,664.93	110	39	63	22	35	36	10,563.46	26	35	91
5	9	14	3,860.78	14	29	30	23	34	37	23,118.65	60	07	60
6	7	15	9,021.11	21	23	20	24	19	49	20,445.07	70	67	76
7	8	15	16,394.48	88	76	92	25	19	50	21,961.66	63	39	18
8	9	15	3,694.85	9	49	44	26	20	50	21,605.76	67	76	10
9	8	16	2,922.10	27	24	92	27	20	51	21,393.13	72	09	57
10	8	17	1,530.30	13	46	36	28	21	51	23,061.17	60	02	72
11	33	33	23,030.92	59	75	45	29	20	52	21,167.25	71	30	06
12	34	33	22,974.55	59	73	51	30	21	52	22,459.20	62	18	62
13	35	33	10,095.55	27	15	73	31	21	53	20,969.64	75	11	83
14	33	34	23,008.77	59	75	27	32	21	54	21,351.92	68	40	53
15	34	34	22,993.01	59	77	82	33	21	55	22,972.19	59	70	97
16	35	34	10,241.99	26	78	49	34	22	55	20,487.00	74	38	32
17	33	35	23,063.98	60	03	12	35	22	56	22,322.50	63	28	97
18	34	35	23,064.79	60	00	10	36	23	56	21,428.28	67	13	87

F.—*Statement showing the description and number of township maps and descriptive lists furnished the different local land offices during fiscal year ending June 30, 1878.*

All north of base line and west of sixth principal meridian in the State of Nebraska.	When transmitted.	Number of plats.
To Register Grand Island Land District:		
Fractional townships 8 and 9 in ranges 13, 14, and 15, and fractional township 8, ranges 16 and 17.....	December 22, 1877.	8
To Register Republican Valley Land District:		
Fractional townships 7 and 8 in ranges 14 and 15.....	January 8, 1878.....	4
To Register Western Land District:		
Township 19 in ranges 49 and 50; township 20, ranges 50, 51, and 52	May 8, 1878	5
Township 21, ranges 52, 53, 54, and 55; township 22, ranges 55 and 56; and township 23, range 56.....	May 8, 1878	7
Townships 33 to 35, ranges 33 to 36, inclusive	July 1, 1878	12
Township 34, range 37; and township 21, range 51	July 1, 1878	2
Total number of plats		38
To Grand Island Land District		8
To Republican Valley Land District.....		4
To Western Land District		26
Descriptive lists all transmitted with plats.		

G.—*Estimates of sums required for the extension of public surveys in the State of Nebraska for fiscal year ending June 30, 1880.*

All north of the base line and west of the sixth principal meridian.	Number of miles.	Rate per mile.	Amount.
<i>Standard lines.</i>			
Fifth guide meridian from sixth to eighth standard parallel; sixth and seventh guide meridians from sixth standard parallel to north boundary of State; the seventh standard parallel from fourth guide meridian to west boundary of State; the eighth standard parallel from fifth guide meridian to west boundary of State.....	432	\$12 00	\$5,184
<i>Exterior lines.</i>			
Townships 25 to 32, ranges 33 to 40, both inclusive; townships 27 to 32, ranges 30 to 32, both inclusive; townships 33 to 35, ranges 38 to 40, both inclusive; townships 33 to 35, range 32.....	846	10 00	8,460
<i>Subdivision lines.</i>			
Seventy-five townships within above exterior lines, coming under classes of lands authorized to be surveyed as described in letter "E" of the honorable Commissioner of the General Land Office, dated August 23, 1877, to be selected after survey of standard and exterior lines	4,500	7 00	31,500
Total			45,144

JNO. R. CLARK,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
DISTRICT OF NEBRASKA AND IOWA,
Plattsmouth, Nebr., July 10, 1878.

H.—*Estimate of sums required for office expenses for fiscal year ending June 30, 1880.*

Salary of surveyor general.....	\$2,000
Salary of chief clerk	1,600
Salary of principal draughtsman.....	1,300
Salary of one assistant draughtsman	1,200
Salary of two copyists, at \$1,100 each	2,200
Office rent, fuel, stationery, binding, and messenger.....	3,000
Total	11,300

JNO. R. CLARK,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
DISTRICT OF NEBRASKA AND IOWA,
Plattsmouth, Nebr., July 10, 1878.

I.—Statement showing the names, duties, nativity, whence appointed, term of service, and rate of compensation per annum of persons employed in the surveyor general's office, district of Nebraska and Iowa, during the fiscal year ending June 30, 1878.

Name.	Duty.	Nativity.	Whence appointed.	Term of service.	Salary per annum.
John R. Clark	Surveyor general ...	Ohio	Nebraska ..	Entire year	\$2,000
Thomas Pollock ...	Chief clerk	Pennsylvania ..	do	do	1,500
Herman Smith.....	Principal draughtsman.	Germany	do	do	1,200
James Pettee	Transcribing clerk..	Massachusetts ..	do	{ July 1 to July 31, 1877, and Nov. 1, 1877, to Jan. 19, 1878. }	1,100
P. P. Gass	Messenger	Ohio	do	Entire year	720

F.—Report of the surveyor general of Wyoming.

SURVEYOR GENERAL'S OFFICE,
Cheyenne, Wyo., August 5, 1878.

SIR: In compliance with your instructions of May 1, 1878, I have the honor to submit herewith, in duplicate, my annual report of the surveying operations of the Wyoming district for the fiscal year ending June 30, 1878.

PROGRESS OF THE PUBLIC SURVEYS OF WYOMING TERRITORY.

The twelfth guide meridian west, from the fifth standard parallel north to the south boundary of the Shoshone Indian reservation, has been surveyed and established as a basis for surveys in the vicinity of said reservation, which had been petitioned for by the settlers in the Popo-Agie Valley; and the length of this meridian, including convergencies and connections, is 83 miles, 13 chains, and 59 links.

The seventh standard parallel north has been established from the twelfth to the thirteenth guide meridian west, passing the continental "divide" in range 103 west, and amounting in length to 48 miles.

The eighth standard parallel north, from the twelfth guide meridian west to range 101 west, a distance of 24 miles, has been also surveyed, and terminates on a spur of the Wind River Mountains.

The tenth guide meridian west, from the south boundary of Wyoming to the fourth standard parallel north, has been surveyed and established through a mountainous and densely timbered country, the distance, including connections, being 27 miles, 46 chains, and 19 links.

Exterior township lines of 51 different townships have been surveyed and established, the total length of which, including connections, is 451 miles, 65 chains, and 92 links.

Nineteen townships, three of which are made fractional by the Shoshone Indian reservation, have been subdivided into sections, and amount in length of lines, including meanders and connections, to 1,050 miles, 13 chains, and 18 links, a detailed statement of which is given herewith in tabular form.

Two of the most eastern of these subdivided townships are 25 miles west of Fort Laramie, and can be irrigated by Laramie River and some of its northern confluent. They are considered valuable as hay lands.

The middle portions of these recent surveys are on the heavily timbered slopes of the Medicine Bow Mountains, some being near Carbon Station, on the Union Pacific Railroad, and embracing mineral, forest, and pastoral lands. Many of the mines in this region are now being successfully worked.

Of the most western surveys those within the limits of the Union Pacific Railroad land grant and in the valleys of Bitter Creek and Green River are chiefly valuable as coal or hay lands, and four of the subdivided townships are traversed by the Union Pacific Railroad. The area of coal lands reported in these subdivisions is 27,454½ acres.

The northern portion of the western surveys contains settlements on the Popo-Agie River mineral lands, now being worked, and hay lands, much of which is or can be easily irrigated.

The recent surveys are delineated on the accompanying map in red ink, and where necessary the topography has been corrected to conform thereto. The boundary between the Cheyenne and Evanston land districts and those of the new counties are also indicated.

The early and deep snows of 1877 prevented the completion of the two contracts of survey in the timbered lands of the Medicine Bow Mountains, though in one of them there remains only one township to be subdivided. In the other, ten townships of exteriors and seven of subdivisions are yet to be surveyed. The deputies employed in these surveys having asked for extension of time, it has been granted. The area of recent subdivisions is 392,717 acres, and the total area surveyed in Wyoming Territory to June 30, 1878, is 7,926,173 acres.

PROPOSED SURVEYS.

The accompanying estimates for the extension of the public surveys in Wyoming during the fiscal year ending June 30, 1880, are intended for the agricultural and pastoral lands on the North Platte River, which are being settled by stock raisers; for the continuation of the surveys of timber and mineral lands in the Medicine Bow Mountains; and for additional surveys of agricultural and timbered lands in the valley of Bear River, near Evanston.

OFFICE WORK.

Of the recent surveys contracted for by this office and payable out of the balance of the appropriation of July 31, 1876, of \$16,500, and that of March 3, 1877, of \$14,400, the original field notes of the standard, exterior, and subdivision lines returned by the deputies were carefully examined, and approved upon their evidence of correctness.

The original diagrams and maps of these surveys have been constructed on the prescribed scale, from the field notes, and placed on file, and a copy of each has been made, compared, and transmitted to the General Land Office.

Copies of all the maps of subdivisions have also been made, compared, and transmitted to the proper local land offices, and a list of these registers' maps has been added to the schedule posted in this office.

The original field notes of all the aforesaid surveys have been transcribed, compared, prefaced with title pages and index diagrams, and, with the maps and surveyors' accounts, transmitted to the General Land Office.

Thirty-eight lists descriptive of the corners, soil, timber, &c., of nineteen townships of subdivisions have been compiled from and carefully compared with the original field notes, certified, and transmitted to the proper local land offices, and the registers' receipts for them placed on file.

The original field notes have been arranged in volumes, and will be bound during the summer. The usual amount of miscellaneous office work has been performed, which it is not deemed necessary to state in detail. There are no arrears of office work.

To secure the prompt performance of the work of this office, and to avoid delay in the adjustment of the deputies' accounts and the necessity of working beyond office hours, a more liberal appropriation for the compensation of clerks is much needed.

CONTRACTS OF 1877 AND 1878.

The contracts of 1877, including those unfinished at the date of my last report, amount to \$15,239.45, paid out of the appropriation of July 31, 1876, of \$16,500, and leave an unexpended balance of \$1,260.55, which reverts to the United States Treasury.

Out of the appropriation of March 3, 1877, of \$14,400, two contracts were entered into, in August, 1877, leaving an estimated unexpended balance of \$5,450, and a third contract was issued in April, 1878, for the survey of standard, exterior, reservation, and section lines in the vicinity of Fort Laramie and in the valley of the North Platte. This contract is estimated at \$5,300, and leaves an estimated balance unexpended of \$150.

At the close of this report, contract No. 94, of August 23, 1877, is nearly completed as to survey; four townships of subdivisions, in valuable timber and mineral land, having been returned to this office, and are now in process of platting and transcribing; and the remainder will be returned in about two weeks.

Contract No. 95, of August 24, 1877, is completed, and the map and transcript have been sent to the General Land Office.

In contract No. 96, of April 23, 1878, the standard lines are returned, and have been platted and transcribed, and the remainder will be returned about August 15, 1878.

DESERT LAND SURVEYS.

One description of survey of desert land, containing 640 acres, has been received from the land office at Evanston, and 26 from the Cheyenne land office, amounting to 8,646.25 acres.

The descriptions of some of these surveys are so indefinite as to render it impossible for the deputy surveyors to close to them.

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NEW SETTLEMENTS—STOCK RAISING—PASTORAL LANDS.

The valley of the North Platte, as far up as longitude 106° 30' west, is now being rapidly settled, mainly by stock raisers. The valley of Bear River is filling up by the same class of immigrants, and by farmers; and the valleys of the Medicine Bow and the Laramie Rivers, by "cattle men" and miners.

The raising of cattle, on an extensive scale, is becoming much more important and profitable in Wyoming than agriculture; and where pure running water for stock can be found the adjacent grazing or pastoral lands ought not to be excluded from survey. These "cattle men" are not a nomadic race, but build comfortable ranches for a home, and thus, becoming permanent settlers, will soon want patents for the lands which they are improving and occupying.

ACCOMPANYING DOCUMENTS.

A. Statement showing the contracts entered into, and the condition of the public surveys, under the appropriation for fiscal year ending June 30, 1878.

B. Statement showing the townships, ranges, areas, and amounts of surveys, for which duplicate maps and transcripts of the field notes have been transmitted to the General Land Office, triplicate maps and descriptive lists furnished the local land offices, and the original field notes filed in this office.

C. Statement showing the townships, ranges, and areas of coal lands surveyed in Wyoming Territory from June 30, 1877, to June 30, 1878, as shown on the original maps on file in this office.

D. Statement showing the description and number of township maps, and descriptive lists furnished to the local land offices, during the fiscal year ending June 30, 1878, numbering north of base line and west of the sixth principal meridian.

E. Statement of amounts deposited by individuals for office work on mining claims, and by the Union Pacific Railroad Company for cost of survey and office work on lands inuring to said company, showing the balances unexpended and available for the surveying service in Wyoming Territory.

F. Statement showing the amount paid to the surveyor general and the clerks in his office, during the fiscal year ending June 30, 1878.

G. Statement of amounts paid for rent of office, fuel, &c., during the fiscal year ending June 30, 1878.

H. Estimate of the appropriation required for the extension of the public surveys in Wyoming Territory during the fiscal year ending June 30, 1880.

I. Statement showing the names, duties, nativity, whence appointed, residence, date of appointment, and rate of compensation per annum of persons employed in the surveyor general's office of Wyoming Territory at the close of the fiscal year ending June 30, 1878.

K. Table prepared by Sergt. James H. Smith, Signal Service, U. S. A., in charge of the United States signal service at Cheyenne, Wyo., showing the monthly mean temperature from June 30, 1877, to June 30, 1878, as corrected by the Chief Signal Officer, Washington, D. C.

L. Table prepared by Sergt. James H. Smith, Signal Service, United States Army, in charge of the United States signal service at Cheyenne, Wyo., showing the daily temperature of the months of January and February, 1878, from observations at 7 a. m., 2 p. m., and 9 p. m., as corrected by the Chief Signal Officer at Washington, D. C.

M. Statement of the number of cars of live stock shipped on the Union Pacific Railroad in Wyoming Territory from June 30, 1877, to June 30, 1878, as reported by W. P. Davis, esq., division superintendent.

All of which is respectfully submitted.

EDW. C. DAVID,

United States Surveyor General of Wyoming Territory.

Hon. J. A. WILLIAMSON,

Commissioner General Land Office, Washington, D. C.

A.—Statement showing the contracts entered into, and the condition of the public surveys, under the appropriation for the fiscal year ending June 30, 1878.

No. of contract.	Date.	Names of contractors or deputy surveyor.	Character, No. of township and range, of surveys north of base line and west of sixth principal meridian.	Sums paid for surveys.	Condition of field and office work.
94	1877. Aug. 23	William O. Downey	Tenth guide meridian west, from south boundary of Wyoming to fourth standard parallel north; west and north boundaries of townships 13, 14, and 15, ranges 78 and 79; west boundaries of townships 12 and 16, ranges 78 and 79, and north boundaries of townships 13, 14, and 15, range 80 west; and subdivisions of townships 13, 14, and 15, ranges 77 and 78, and township 12, range 78.	\$1,523 77	Unfinished.
95	Aug. 24	Lewis M. Lampton	West boundaries of townships 17, 18, 19, and 20, ranges 79 and 81; north boundaries of townships 17, 18, 19, and 20, ranges 79, 80, 81, and 82; and subdivisions of townships 17 and 18, range 78, and township 20, ranges 79, 80, and 81.	3,249 32	Unfinished.
96	1878. Apr. 23	William B. Yerby ..	Sixth and seventh standard parallels, from eighth guide meridian to east boundary of Wyoming; eighth guide meridian, from south boundary of Fort Laramie Reservation to seventh standard parallel; exteriors of townships 23 to 28, inclusive, ranges 60 to 64, inclusive, and subdivisions of townships 23 and 24, ranges 60 and 61, townships 24 and 25, range 62, and townships 25 and 26, range 63; and southeast and north boundaries of Fort Laramie Reservation, under special instructions.	.....	Unfinished.
Appropriation of July 31, 1876.....					16,500 00
Amount paid on contracts out of said appropriation				15,239 45	
Balance unexpended and reverting to United States Treasury				1,260 55	
Totals				16,500 00	16,500 00
Appropriation of March 3, 1877					14,400 00
Estimated cost of contracts out of said appropriation				14,250 00	
Estimated balance unexpended out of said appropriation				150 00	
Totals				14,400 00	14,400 00

EDW. C. DAVID,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Cheyenne, Wyo., August 5, 1878.

B.—Statement showing the townships, ranges, areas, and amounts of surveys, for which duplicate maps and transcripts of the field notes have been transmitted to the General Land Office, triplicate maps and descriptive lists furnished to the local land offices, and the original maps and field notes filed in this office.

Number of townships.	Townships north.	Ranges west.	Area, acres.	Subdivisions, meanders, and connections.		
				Miles.	Chains.	Links.
1	25	69	23, 104. 48	60	16	48
2	25	70	23, 094. 78	60	16	10
3	13	78	23, 003. 92	59	72	98
4	18	78	23, 048. 25	60	1	76
5	20	79	21, 702. 52	59	22	15
6	20	80	22, 326. 62	59	17	7
7	20	81	22, 102. 51	58	64	47
8	29	98	23, 068. 03	60	3	42
9*	34	98	5, 924. 36	23	34	52
10	18	99	23, 053. 94	60	4	53
11	29	99	23, 082. 92	60	4	81
12*	33	99	22, 176. 70	62	69	98
13*	34	99	1, 240. 10	9	18	24
14	18	100	22, 968. 36	59	71	8
15	33	100	23, 045. 74	60	2	10
16	17	103	22, 262. 05	58	75	91
17	19	103	21, 605. 08	58	11	.....
18	17	106	23, 021. 21	60	2	74
19	18	106	22, 885. 72	59	63	84
Total			392, 717. 29	1, 050	13	18

* Fractional.

RECAPITULATION.

	Townships.	Acres.
Total number of townships subdivided in 1877 is	19	392, 717. 29
Total number of townships subdivided previously is	362	7, 533, 456. 08
Total number of townships subdivided to June 30, 1878, is	381	7, 926, 173. 37

Total amount of subdivisions in 1877 is 1,050 miles, 13 chains, and 18 links.

EDW. C. DAVID,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Cheyenne, Wyo., August 5, 1878.

C.—Statement of the townships, ranges, and areas of coal lands surveyed in Wyoming Territory from June 30, 1877, to June 30, 1878, as shown on the original maps on file in this office.

	Acres.
Township 18 north, range 99 west, of sixth principal meridian	4, 486. 14
Township 18 north, range 100 west, of sixth principal meridian	22, 968. 36
Total area of coal lands surveyed in 1877	27, 454. 50
Total area of coal lands surveyed previous to 1877	235, 369. 88
Aggregate of coal lands surveyed to date	262, 824. 38

EDW. C. DAVID,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Cheyenne, Wyo., August 5, 1878.

D.—Statement showing the description and number of township maps and descriptive lists furnished to the local land offices during the fiscal year ending June 30, 1878, numbering north of the base line and west of the 6th principal meridian.

Township.	Range.	No. of maps.	No. of lists.
29 and 34.....	98	2	4
18, 29, 33 and 34.....	99	4	8
18 and 33.....	100	2	4
17 and 19.....	103	2	4
17 and 18.....	106	2	4
Total (sent February 4, 1878, to register at Evanston)		12	24
25.....	69 and 70	2	4
13 and 18.....	78	2	4
20.....	79, 80, 81	3	6
Total (sent February 25, 1878, to register at Cheyenne)		7	14
Total number of maps furnished		19	
Total number of lists furnished			38

EDW. C. DAVID,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Cheyenne, Wyo., August 5, 1878.

E.—Statement of amounts deposited by individuals for office work on mining claims and by the Union Pacific Railroad Company for cost of survey and office work on lands inuring to said company, showing the balances unexpended and available for the surveying service in Wyoming Territory.

Total sum of all special deposits for office work to June 30, 1878.....	\$1,062 29
Total sum expended for office work to June 30, 1878.....	541 52
Balance unexpended for office work and available to June 30, 1878....	520 77
Total sum of deposits by the Union Pacific Railroad Company for cost of survey of lands inuring to said company to June 30, 1878.....	2,621 59
Total sum expended for surveys to June 30, 1878.....	1,595 00
Balance expended and available to June 30, 1878.....	1,026 59

EDW. C. DAVID,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Cheyenne, Wyo., August 5, 1878.

F.—Statement showing the amount paid to surveyor general and the clerks in his office during the fiscal year ending June 30, 1878.

1877.		
Mar. 3.	By appropriation for compensation of surveyor general for fiscal year ending June 30, 1878	\$2,750 00
Mar. 3.	By appropriation for salaries of clerks for fiscal year ending June 30, 1878	3,500 00
June 30.	By balance unexpended of special deposits for office work.....	760 44
Sept. 30.	To amount for first quarter ending September 30, 1877. \$1,609 70	
Dec. 31.	To amount for second quarter ending December 31, 1877 1,673 88	
1878.		
Mar. 31.	To amount for third quarter ending March 31, 1878....	1,716 90
June 30.	To amount for fourth quarter ending June 30, 1878....	1,487 50
June 30.	To balance unexpended of appropriation of March 3, 1877, salaries of clerks.....	48
June 30.	To balance unexpended of special deposits for office work.....	521 98
Totals.....		7,010 44 7,010 44

EDW. C. DAVID,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Cheyenne, Wyo., August 5, 1878.

G.—Statement of amounts paid for rent of office, fuel, stationery, &c., during the fiscal year ending June 30, 1878.

1877.		
Mar.	3.	By appropriation for rent of office, fuel, &c., for fiscal year..... \$1,500 00
Sep.	30.	To amount for first quarter, ending September 30, 1877..... 207 95
Dec.	31.	To amount for second quarter, ending December 31, 1877..... 266 75
1878.		
Mar.	31.	To amount for third quarter, ending March 31, 1878.... 192 35
June	30.	To amount for fourth quarter, ending June 30, 1878.... 278 40
June	30.	To balance reverting to United States Treasury..... 554 55
Totals		1,500 00 1,500 00

EDW. C. DAVID,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Cheyenne, Wyo., August 5, 1878.

H.—Estimate of the appropriation required for the extension of the public surveys in Wyoming Territory during the fiscal year ending June 30, 1880.

For extending surveys of standard lines, 200 miles, at \$10 per mile.....	\$2,000
For extending surveys of township lines, 1,200 miles, at \$7 per mile..	8,400
For subdividing 100 townships, 6,000 miles, at \$6 per mile.....	36,000
	<u>\$46,400</u>
For salary of surveyor general.....	3,000
For salary of chief clerk.....	1,800
For salary of principal draughtsman.....	1,500
For salary of assistant draughtsman.....	1,400
For salaries of two transcribing clerks.....	2,800
For rent, fuel, stationery, messenger, and incidental expenses.....	2,000
	<u>12,500</u>
Total for field and office work.....	58,900

EDW. C. DAVID,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Cheyenne, Wyo., August 5, 1878.

I.—Statement showing the names, duties, nativity, whence appointed, residence, date of appointment, and rate of compensation per annum of persons employed in the surveyor general's office of Wyoming Territory at the close of the fiscal year ending June 30, 1878.

Name.	Duty.	Nativity.	Whence appointed.	Residence.	Date of appointment.	Salary.
Edward C. David ..	Surveyor general	N. Hamp..	Iowa	Wyoming.	Aug. 23, 1875	\$2,750
Alfred L. Brown...	Chief clerk	Virginia ..	Nebraska ..	do	Sept. 23, 1875	1,800
William W. Smith ..	Transcribing clerk....	Georgia ...	Iowa	do	Sept. 23, 1875	1,400

The principal and assistant draughtsmen and one transcribing clerk have been discontinued on account of the deficiency in the appropriation.

EDW. C. DAVID,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Cheyenne, Wyo., August 5, 1878.

K.—Table prepared by Sergeant James H. Smith, Signal Service, U. S. A., in charge of the United States signal service office at Cheyenne, Wyo., showing the monthly mean temperature from June 30, 1877, to June 30, 1878, as corrected by the Chief Signal Officer, Washington.

Date.	Mean barometer corrected for temperature and elevation.	Mean temperature, 3 daily observations.	Prevailing winds, from what direction.	Total number of miles traveled by wind.	Amount of rainfall, in inches and decimals.	Number of days on which rain or snow fell.
1877.						
July	39.039	70.2	S.	6,621	0.43	4
August	30.073	67.9	S.	6,398	0.83	7
September	29.993	56.2	W.	6,654	2.02	5
October	29.973	40.0	W.	7,005	1.99	13
November	29.942	30.1	W.	8,970	0.17	6
December	29.953	28.9	W.	7,155	0.33	5
1878.						
January	29.876	25.3	N. W.	8,981	0.08	4
February	29.780	30.9	N. W.	7,493	0.13	7
March	29.868	38.7	N. W.	10,024	1.16	7
April	29.773	43.5	N. W.	8,707	0.19	8
May	29.907	47.9	N. W.	4,857	4.46	20
June	30.025	58.6	N. W.	5,288	1.71	14
Total of miles traveled by the wind				88,153		

SURVEYOR GENERAL'S OFFICE,
Cheyenne, Wyo., August 5, 1878.

EDW. C. DAVID,
Surveyor General.

L.—Table prepared by Sergeant James H. Smith, Signal Service, U. S. A., in charge of the United States signal service office at Cheyenne, Wyo., showing the daily temperature of the months of January and February, 1878, from observations at 7 a. m., 2 p. m., and 9 p. m., as verified by the Chief Signal Officer at Washington City, D. C.

Day of month.	Temperature for January, 1878.			Day of month.	Temperature for February, 1878.		
	7 a. m.	2 p. m.	9 p. m.		7 a. m.	2 p. m.	9 p. m.
1	8	17	9	1	27	35	27
2	— 4	21	21	2	20	38	25
3	10	17	4	3	27	40	30
4	0	18	6	4	36	50	37
5	3	18	6	5	33	46	33
6	5	25	12	6	25	43	28
7	23	39	30	7	30	37	29
8	30	37	33	8	19	29	23
9	33	36	36	9	19	24	18
10	24	46	34	10	13	29	26
11	26	30	23	11	29	42	33
12	16	23	10	12	24	43	33
13	5	26	11	13	26	38	29
14	4	36	9	14	26	36	27
15	17	38	18	15	25	40	27
16	26	45	32	16	22	44	34
17	27	47	32	17	32	49	33
18	30	37	32	18	36	47	39
19	24	32	24	19	35	52	30
20	23	31	23	20	26	35	23
21	25	39	29	21	21	38	28
22	24	45	33	22	21	30	26
23	39	43	32	23	16	31	20
24	26	38	25	24	14	44	25
25	20	42	25	25	12	44	24
26	26	41	32	26	23	57	34
27	33	39	34	27	31	56	37
28	36	43	32	28	42	40	32
29	24	35	23				
30	18	40	27				
31	27	38	28				

SURVEYOR GENERAL'S OFFICE,
Cheyenne, Wyo., August 5, 1878.

EDW. C. DAVID,
Surveyor General.

M.—Statement of the number of cars of live stock shipped on the Union Pacific Railroad, in Wyoming Territory, from June 30, 1877, to June 30, 1878, as reported by W. P. Davis, esq., division superintendent.

Names of stations.	Number of cars cattle.	Number of cars horses.	Number of cars mules.	Number of cars hogs.	Whether received or shipped.
Pine Bluff	666				Shipped.
Cheyenne	49	13	3		Received.
Cheyenne	539	18	16		Shipped.
Laramie	162				{ 8 cars sheep shipped.
Laramie		3	3		Received.
Medicine Bow		26	1		Received.
Fort Steele		8			Shipped.
Fort Steele		4	3		Received.
Granger	85				Shipped.
Evanston	80			1	Shipped.
Rawlings	2				Received.
Rawlings	90	2			Shipped.
Green River	13		1		Shipped.
Green River		40	7		Received.
Hampton	265				Shipped.
Total	1,951	114	34	1	8 cars sheep.

EWD. C. DAVID,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Cheyenne, Wyo., August 5, 1878.

G.—Report of the surveyor general of New Mexico.

SURVEYOR GENERAL'S OFFICE,
Santa Fé, N. Mex., August 15, 1878.

SIR: In compliance with instructions contained in your letter E, of May 1 last, I have the honor to herewith submit in duplicate the annual report of the operations of this office for the year ending June 30, 1878.

FIELD WORK.

There have been surveyed during the year 72 miles of the New Mexico principal meridian, 30 miles of guide meridian, 288 miles 0.5 chains 21 links of standard parallel, which have been returned to this office, a part of which has not been paid for, as explained in Exhibit A herewith; also, 434 miles 16 chains 57 links of township exteriors; 1,502 miles 17 chains 32 links of subdivisional lines exclusive of 15 miles 63 links of survey of five sections of Ojo Caliente Indian Reservation; and 15 miles 11 chains 0.6 links of closings on parallels in the prosecution of the public work, the aggregate cost of which could not be ascertained at the end of the fiscal year, as a portion of the same had then but recently been returned. Exhibits A and B show the amount of work paid for and that portion yet remaining unpaid. Exhibit A embraces the surveys made under the regular Congressional appropriation, and Exhibit B those made under sections 2401 and 2402 of the Revised Statutes.

The subdivisional lines of these surveys embrace 539,785.55 acres; which, added to the amount previously surveyed, makes a total of 7,846,942.77 acres (see Exhibit C) surveyed in this district the past fiscal year.

In addition to the public surveys there have been surveyed and returned, since my last report, 47 private land claims from the appropriation for the fiscal year ending June 30 last. The field notes of the 47 grants surveyed have not all been examined and platted, hence a complete statement of the number of miles surveyed and cost of survey cannot at this time be given; but Exhibit D shows the grants surveyed, number of miles and cost of survey so far as at present ascertained, together with the area embraced therein, which is _____ acres, exclusive of those whose area is not yet determined for reasons given in said exhibit. Of these grants the Armendaris, No. 34, and Anten Chico, are resurveys directed by you in letters of May 26, 1877, and April

30, 1878, respectively. As previously stated, the Exhibits A, B, and C show what work has been executed in the field, returned, examined, and forwarded, and that still remaining in the office awaiting disposition and the condition of same.

The public surveys were strictly confined to lands embraced in the classification made by Congress, and to the localities where settlers had petitioned to have surveys made; although the appropriation was entirely inadequate to meet the demands of settlers throughout the Territory, and but comparatively few localities could be accommodated, yet, as will be seen from the list of townships subdivided, they were in some instances several hundred miles apart, and only a portion of the surveys required could be made in each of these localities, as it was impossible to estimate the amount of surveyable land in the respective localities. There has been an impression among those who are not familiar with the facts, that but a small portion of New Mexico is arable, and to some extent I had entertained a somewhat similar opinion of this Territory previous to my location here; but each year enlarges the area of such lands in the estimation even of the old residents, as the results of new explorations are made known, and as the lands become more valuable for purposes of agriculture and fruit raising. Heretofore in the minds of the people in the States the idea of New Mexico has been more or less associated with a country of barren plains, mountains, and unproductive valleys; but the real merits of New Mexico as a mineral, pastoral, and agricultural country are rapidly becoming known and appreciated, as evidenced by the largely increased emigration to the Territory the past year.

New Mexico contains 121,201 square miles, or 77,568,640 acres, only about one-tenth of which has been surveyed exclusive of grant surveys, which latter, however, embrace a considerable portion of the same area, as a portion of the public surveys are also included in the grant surveys which were made subsequent to such public surveys. I have adopted the rule not to extend the lines of the public surveys over territory likely to be covered by private land claims.

From personal observation and inquiry I estimate the area of unsurveyed arable and irrigable lands in the Territory at not less than 8,000,000 acres.

I reiterate the recommendation made in my last report relative to the inspection of all surveys, and if the inspector is designated by the department it would be preferable for reasons therein stated.

MINING CLAIMS.

There have been seven mining claims surveyed during the year, as shown by Exhibit E. The condition of office work on same will appear from said exhibit.

Exhibit F contains a list of mineral deputy surveyors, all of whom have been notified to give bond as required by your circular of instructions of November 13, 1877.

DESERT LANDS.

There have been eleven copies of declaratory statements filed in this office during the year, all from the register of the Mesilla land office.

OFFICE WORK.

Exhibits A, B, and D show what field notes of surveys made under contracts entered into previous to the close of the past fiscal year have been returned, examined, approved, and transcripts of same together with the plats transmitted as the law and regulations require; they also show the status of the work yet to be disposed of, which, on account of inadequate clerical force, it has been impossible to dispatch.

A considerable portion of the platting and transcribing the deputies have had done outside the office in order to facilitate payment for their work, to enable them to pay their men, with the understanding that they would lose what they paid for same unless Congress reimburses them, which in justice should be done. The amount actually paid out by the various deputies in this manner will approximate \$1,500. And as the government has had the benefit of this expenditure, I respectfully request that Congress be solicited to make the appropriation necessary to reimburse these parties for the outlay referred to. The office work incident to and resulting from the surveys of last year would have occupied my small force two years in disposing of same, but the transcribing and platting of a portion of the surveys outside the office, which was paid for by the deputies, has very much facilitated the work of the office. The current work of the office has been kept up as nearly as possible with the limited clerical force at my disposal, which is entirely inadequate, and the business is necessarily in arrears. The numerous protests against the manner of survey of a large number of the private land claims and the investigation resulting therefrom has occupied a considerable portion of the time of the clerks as well as my own, which, with the grant investigations and other duties, my force of clerks and myself have been obliged to work not unfrequently until midnight to gratify the public having official business to transact.

I anticipated in my last report that numerous complaints would arise from grant claimants relative to the grant surveys, and they have in fact exceeded my expectations in that respect, all of which involves a considerable amount of clerical labor, and it has taken a large portion of my own time in these investigations.

When I took charge of this office, something over two years ago, the work was several years in arrears, and, as my clerical force was soon thereafter reduced, it has been impossible to gain much on the work in arrears.

The records should be brought up to date and kept so. The record of grants acted upon should be brought up. The grants filed should be entered in full in a book kept for that purpose, yet this has never been done except in the case of a portion of those acted upon, and the record is incomplete in these cases, while of the large number remaining unacted upon there never has been a complete or proper record made.

Copies of grant plats should be furnished the local land offices. The descriptive lists of public surveys have not been furnished the local land offices since 1868, and in some other minor respects the work of the office is in arrears, and I earnestly urge the necessity for the full appropriation for clerk hire estimated for in my letter of July 5, 1878.

INCIDENTAL EXPENDITURES.

The condition of the appropriation for incidental expenses will appear from Exhibit G. The amount of this appropriation is entirely too small for the actual necessities of the office. It is absolutely necessary to replace some of the old furniture, provide cases for the accumulating files, purchase some books relating to the Spanish and Mexican land titles, as the office has never been provided with any of the Spanish or Mexican laws, which are so essential in the investigation of private land claims.

A safe is needed for the custody of valuable title papers, which if lost would seriously embarrass legitimate claimants and open wide the door for the presentation of fraudulent claims, as the parties would boldly assert that they were originally filed among the archives of the office, and would undertake to substantiate such claims by parol evidence, which, I regret to say, could doubtless be obtained for a trifling consideration.

In April last I became satisfied that the appropriation would prove insufficient to meet the actual and necessary incidental expenses of this office, and I notified the party employed as messenger, who was paid out of that fund, that I would have no money to pay him after the 27th of that month unless Congress gave me a deficiency, which I asked for in my letter of May last; that if he continued to serve he must do so at his own risk of getting pay. His services were indispensable, and were rendered up to the end of the fiscal year, and should be paid for, otherwise I will in justice be compelled to pay him out of my private means.

I used every effort to retrench and reduce the expenditures, and keep them within the limit of the appropriation, but it was utterly impossible to do so and keep the office in operation.

I respectfully request that Congress be asked to appropriate the amount of \$61.97 to pay for services of messenger in this office from April 28 to June 30, 1878. Also that the full amount of the estimate for the ensuing fiscal year be allowed; and also that an additional sum of \$500 be appropriated for contingent expenses of this office for the present fiscal year ending June 30, 1879.

PUBLIC LANDS.

About one-tenth of the public lands, exclusive of grants, have been surveyed in this district; and while settlers in various localities are clamorous for the extension of the lines of the public surveys over their tracts, the inadequate appropriations for that purpose have rendered it impossible to comply with their requests, except to a limited extent.

The settlers as a class are limited in means, and in most cases have not the ability to advance the money requisite for such surveys, nor is it just that they should be placed in a position rendering such action necessary in order to perfect their titles. These parties endure the hardships and exposure incident to the frontier, and at the outset are compelled to struggle with poverty in order to secure a home and eventual independence for their families; and in the first years of their settlement it is difficult for them to maintain themselves without being compelled to borrow money at a high rate of interest to pay for the survey of their land; and again, should they desire to acquire title under the homestead act, their advances for payment of surveys would be useless to them in acquiring title to such lands as they claim under said act. The cost per acre for these surveys is but a trifle, and I fail to perceive the economy of Congress withholding the requisite appropriations to survey at once the arable lands of the country so that the settlers in any locality may perfect their titles at any time they may desire.

What are termed the grazing lands of this Territory would find ready sale were they surveyed and subject to private entry. In my last report I treated the subject of this class of lands at some length, giving my reasons for the recommendations therein.

made, and I have had no reason to alter my opinion in respect thereto, but am more firmly convinced of their propriety.

PRIVATE LAND CLAIMS.

Since my last report there have been two claims filed, and a considerable amount of testimony has been taken in quite a number of other cases on original hearing, and a reinvestigation by your order is now pending in two cases, viz, the Juan Luis Ortiz, No. 75, and Uña de Gato, No. 94, which had been previously reported by my predecessor. In these two cases a large amount of evidence has been taken, but they are still awaiting further testimony.

Of the private land claims which I have had under investigation final action has been had in three instances; one has been approved, and two rejected as invalid.

Certified copies of the title papers, evidence, and my opinion approving the grant to José Trujillo, the one referred to, will be forwarded in due time for the action of Congress. While testimony has been taken in quite a number of cases, and a partial investigation had, the difficulty in obtaining credible witnesses is increasing as time lapses, and claimants appear to be indifferent about prosecuting their cases, some of whom allege as a reason that Congress has not acted upon any grants for several years, and the claimants are disposed to await the action of Congress on those now before it.

I earnestly renew my recommendation of last year that Congress fix a limitation on the time for filing and prosecuting claims of this character, and provide that they should be barred thereafter. I also renew the suggestion that the courts are the proper tribunal to investigate and adjudicate all of this class of claims; and should the authority to investigate them be continued in the surveyor general, he should be specifically empowered by law to issue compulsory process, to punish for contempt, &c. Provision should also be made for the employment of an attorney to represent the government in the securing and examination of witnesses. The United States attorney is usually busily engaged in the regular courts, and hence I suggest that it would be advisable for Congress to appropriate, say, \$2,000 or \$2,500 with which to pay for the services of an attorney on behalf of the government. In the constant press of business of this office it is impossible for the surveyor general to devote the requisite time in hunting up witnesses and documentary evidence, such as records of the various alcaldes and probate clerks of the Territory, which in many instances would throw important light upon the cases under consideration. Under the present system the surveyor general must perform all that duty, cross-examine claimant's witnesses, and judge impartially between the government and claimant.

I have little hope that Congress will act upon any of these suggestions, as they have twice been presented heretofore and no action taken thereon; but the magnitude of the government interests involved, with the title to millions of acres of land in question, impels me to again call attention to the criminally lax method and imperfect means of investigating and adjusting these Spanish and Mexican land titles. If the surveyor general is clothed with proper power and provided the means herein suggested, there is no reason why he could not promptly and satisfactorily investigate and finally dispose in a reasonable time of all pending claims; but an increase of at least two clerks will be required, and the limitation should fix a time not only for filing the claims but of prosecuting same.

The uncertain condition of things is retarding settlement, and until all these titles are adjudicated and the grants are segregated from the public domain, that uncertainty of title will continue, to the serious detriment of the citizens generally.

AGRICULTURE, FRUIT AND STOCK RAISING.

There is a much larger portion of New Mexico adapted to agriculture than is generally supposed by those who have seen but little of the seasons and what the capabilities of the soil are. The valleys of the San Juan, Rio Grande, Gila, Pecos, Red River, Dry Cimarron, and others, streams with their hundreds of tributaries, afford an immense area of arable land, the real extent of which is yet only partially known. Near the foot of the various mountain ranges there is sufficient rain-fall to render irrigation unnecessary in many localities, even were it practicable; and fine crops of corn, wheat, oats, and vegetables are raised, while the mountain sides and plains, covered at all seasons with the nutritious gramma grass, afford an admirable range for stock.

The cultivation of cotton in the southern portion of the Territory is quite successfully engaged in, and as soon as railroad facilities for shipment of same are acquired it will become one of the profitable and considerable industries of the Territory. Fruits of all kinds are raised in abundance, and the valley of the Rio Grande will eventually become one vast vineyard.

MINERALS.

The mica mines referred to in my last report have been more thoroughly developed and are being successfully worked, producing an excellent quality of that mineral. The gold, silver, lead, and copper mines of the Territory continue to be successfully

operated, and have produced an increased yield over my report of last year, and upon the completion of one or more of the lines of railway now approaching and entering the Territory, a new impetus will be given this interest, as the mines are rich and the ore abundant; but capital and means of ready transportation are required to develop the real magnitude of this industry.

RAILROADS.

The Atchison, Topeka and Santa Fé Railroad extension from La Junta, Colo., via El Moro and Trinidad, and thence through Las Vegas, and probably Santa Fé to the Rio Grande, at or near Albuquerque, is being rapidly constructed.

The work of tunneling the Raton Mountains in this Territory was commenced in March last, and the contract has been let for the grading and bridging of the line to Las Vegas, San Miguel County, to be completed not later than the 1st of March next, and I am credibly informed that the road will be pushed forward to the Rio Grande, and thence to the southern or western portion of the Territory as rapidly as possible.

The Denver and Rio Grande Railway Company have already completed their line to Alamosa, and graded to the north boundary line of the Territory, and I am informed have let the contract to complete the grading, &c., to Santa Fé by next spring, so that New Mexico is fairly and certainly upon the threshold of wealth and prosperity, as capital and population will surely follow the advent of the iron horse, or all precedents will fail in the case of this Territory.

TELEGRAPH LINES.

There are but two lines of telegraph in the Territory—the one east from here, via Las Vegas, Fort Union, Cimarron, and to Trinidad, Colo., owned and operated by the Western Union Company; the United States military telegraph-line, from this city, via Albuquerque, Las Lunas, Belen, Fort Craig, Las Cruces, La Mesilla (El Paso, Tex.), Fort Bayard, Silver City, and connecting at Ralston with the Arizona division, through Tucson to San Diego, Cal. Preparations are now being made to connect the line from El Paso with Fort Davis, Texas.

I am indebted to Sergeant Max Frost, United States Signal Service, Santa Fé, for the foregoing data relative to telegraph-lines, and also for the following table compiled from the observations of the United States Signal Service at Mesilla, in the southern part of the Territory, and at Santa Fé for the year ending June 30 last:

Mesilla.

Mean barometer.....	30.098 inches.
Mean thermometer.....	60°.5.
Mean humidity for last six months of year.....	40.6 per cent.
Highest thermometer.....	104°.
Lowest thermometer.....	13°.
Total rain-fall for six months.....	5.91 inches.

Santa Fé.

Mean barometer.....	29.809 inches.
Mean thermometer.....	48°.3.
Mean humidity.....	41.4 per cent.
Highest thermometer.....	90°.5.
Lowest thermometer.....	2°.
Total rain-fall.....	12.94 inches.

For a statement of special deposits for surveys by settlers, expenditures for salaries, incidentals, the condition of the several appropriations for this district for the fiscal year ending June 30, 1878, and estimates for the fiscal year ending June 30, 1880, I respectfully call attention to Exhibits G, H, I, K, and L, respectively.

ACCOMPANYING EXHIBITS.

A.—Statement of public surveys executed under Congressional appropriation and their cost.

B.—Statement of public surveys executed under sections 2401 and 2402 Revised Statutes, and their cost.

C.—List of surveyed townships, and their contents in acres.

D.—List of private land claims surveyed during the fiscal year ending June 30, 1878.

E.—List of mining and mill site claims surveyed.

F.—List of mineral deputy surveyors.

G.—Statement of special deposits for surveys.

H.—Statement of expenditures on account of salaries.

I.—Expenditures for incidental purposes.

K.—Statement showing the condition of the several appropriations for New Mexico for the fiscal year ending June 30, 1878.

L.—Estimates for the ensuing fiscal year.

Very respectfully, your obedient servant,

HENRY M. ATKINSON,
Surveyor General.

Hon. J. A. WILLIAMSON,
Commissioner of the General Land Office.

A.—Statement of public surveys made out of the regular appropriation for that purpose in the district of New Mexico during the fiscal year ending June 30, 1878.

Contract.		Contractors.	Character of survey.	Townships.	Ranges.	Surveyed.		Rate per mile.	Cost.	Remarks.
No.	Date.					m.	c. l.			
75	July 31, 1877	McBroom & Shaw.	First guide meridian east of principal meridian and south of base line.	1, 2, 3, 4, and 5 south....	Between 12 and 13 east..	25	54	\$16	\$69 10	Transmitted May 8, '78.
75	July 31, 1877	do	do	1, 2, 3, 4, and 5 south....	Between 12 and 13 east..	90	00	10	1,156 81	Do.
75	July 31, 1877	do	First correction line south	.....	Through 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, and 27 east.	5	78	7	1,538 07	Do.
75	July 31, 1877	do	Exteriors	Between 2 and 3 south ..	25 east ..	11	78	7		
75	July 31, 1877	do	do	Between 3 and 4 south ..	25 and 26 east ..	11	79	7		
75	July 31, 1877	do	do	Between 4 and 5 south ..	25 and 26 east ..	11	76	7		
75	July 31, 1877	do	do	Between 6 and 7 south ..	25 and 26 east ..	11	77	7		
75	July 31, 1877	do	do	Between 7 and 8 south ..	25 and 26 east ..	11	78	7		
75	July 31, 1877	do	do	Between 8 and 9 south ..	25 and 26 east ..	11	79	7		
75	July 31, 1877	do	do	Between 9 and 10 south ..	25 and 26 east ..	41	23	7		
75	July 31, 1877	do	do	3, 4, 5, 6, 7, 8, and 9 south	Between 24 and 25 east..	59	26	7		
75	July 31, 1877	do	do	1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 south.	Between 25 and 26 east..	41	20	7		
75	July 31, 1877	do	do	4, 5, 6, 7, 8, 9, and 10 south	Between 26 and 27 east..	68	25	7		
75	July 31, 1877	do	do	Between 14 and 15 south	4 west ..	1	50	7		
75	July 31, 1877	do	do	Between 15 and 16 south	4 west ..	6	51	7		
75	July 31, 1877	do	do	16 and 17 south ..	Between 4 and 5 west ..	6	05	7		
75	July 31, 1877	do	do	16 south ..	Between 5 and 6 west ..	14	05	7		
75	July 31, 1877	do	Closings on parallels	1 south ..	Between 25 and 26 east..	23	25	7		
75	July 31, 1877	do	do	6 south ..	Between 24 and 25 east..	18	50	7		
75	July 31, 1877	do	do	6 south ..	Between 25 and 26 east..	20	00	7		
75	July 31, 1877	do	do	6 south ..	Between 26 and 27 east..	450	43	6		
75	July 31, 1877	do	Subdivisional	3, 4, 5, 6, 7, 8, 9, and 10 south.	25 east ..	415	45	6	5,519 06	Transmitted May 8, '78, except township 10 south, range 25 east, which is ready for transmittal.
75	July 31, 1877	do	do	4, 5, 6, 7, 8, 9, and 10 south	26 east ..	39	33	6		
75	July 31, 1877	do	do	8 south ..	9 east ..	11	00	6		
75	July 31, 1877	do	do	9 south ..	15 east ..	2	29	6		
75	July 31, 1877	do	Closings on parallels	6 south ..	25 and 26 east ..	53	03	6		
75	July 31, 1877	do	Subdivisional	Fractional 13 and 15 south	4 west ..	163	61	6		
75	July 31, 1877	do	do	15, 16, and fractional 17 south.	5 west ..	1	61	6		
75	July 31, 1877	do	Closings on parallels	.....	.....	21	00	16		
77	Aug. 9, 1877	Charles H. Fitch	Principal meridian	Through 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, and 28 north.	Between 1 east and 1 west				336 00	Transmitted March 30, 1878; timbered or mountainous.

77	Aug. 9, 1877	do	Through 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, and 28 north.	Between 1 east and 1 west	51	00	00	10	510	00	Transmitted March 30, 1878.
77	Aug. 9, 1877	do	Between 28 and 29 north.	Through 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, and 16 west.	24	00	00	16	384	00	Transmitted March 30, 1878; timbered or mountainous.
77	Aug. 9, 1877	do	Between 28 and 29 north.	Through 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, and 16 west.	69	70	21	10	698	78	Transmitted March 30, 1878.
77	Aug. 9, 1877	do	29 north	Between 10 and 11 and 11 and 12 west.	12	00	00	7	126	24	Do.
77	Aug. 9, 1877	do	Between 29 and 30 north.	11 west	6	02	88	}	}	}	Not platted, and the miles of timbered and mountainous portions, for which increased rates would be allowed, not yet determined.
77	Aug. 9, 1877	do	Between 5 and 6 south ..	Part of 3 and all of 4 to 20 west, inclusive.	104	15	00				
77	Aug. 9, 1877	do	4 and 5 south	Between 17 and 18 west.	11	73	46				
77	Aug. 9, 1877	do	4 and 5 south	Between 18 and 19 west.	12	00	00	}	}	}	There has been allowed on these exterior 41 miles 65.48 chains, at \$14 per mile; 14 miles 42 chains at \$7 per mile. Account, &c., transmitted April 5, 1878.
77	Aug. 9, 1877	do	Between 3 and 4 and 4 and 5 south.	19 west	11	74	95				
77	Aug. 9, 1877	do	4 and 5 south	Between 19 and 20 west.	12	00	00				
77	Aug. 9, 1877	do	Between 4 and 5 south ..	20 west	5	78	00	}	}	}	This subdivisional work was transmitted April 5, 1878, and \$10 per mile allowed for 20 miles 58.01 chains legal subdivisions and 5 miles 78.31 chains of the five sections, as that portion of the subdivisional lines was mountainous or heavily timbered.
77	Aug. 9, 1877	do	5 south	Between 20 and 21 west.	6	00	00				
77	Aug. 9, 1877	do	Fractional 29 north	11 west	26	01	96				
77	Aug. 9, 1877	do	Fractional 4 and 5 south ..	19 west	17	79	12	}	}	}	502
77	Aug. 9, 1877	do	Fractional 5 south	20 west	12	00	44				
77	Aug. 9, 1877	do	9 south	Between 6 and 7 west.	3	00	00				
81	Sept. 19, 1877	do	Between 7 and 8 south ..	7 west	2	30	00	}	}	}	687
81	Sept. 19, 1877	do	Between 8 and 9 south ..	7 west	6	00	00				
81	Sept. 19, 1877	do	7, 8, and a part of 9 south.	Between 7 and 8 west.	13	00	00				
81	Sept. 19, 1877	do	Between 6 and 7 south ..	8 west	5	78	06	}	}	}	59
81	Sept. 19, 1877	do	Between 7 and 8 south ..	8 west	5	79	42				
81	Sept. 19, 1877	do	Between 8 and 9 south ..	8 west	6	00	00				
81	Sept. 19, 1877	do	Between 8 and 9 south ..	Between 8 and 9 west.	12	00	00	}	}	}	63
81	Sept. 19, 1877	do	7 and 8 south	9 west	2	00	00				
81	Sept. 19, 1877	do	Between 8 and 9 south ..	9 west	2	00	00				
81	Sept. 19, 1877	do	Subdivisional	7 west	4	20	26	}	}	}	12,945
81	Sept. 19, 1877	do	do	8 west	44	01	84				
81	Sept. 19, 1877	do	do	do	2	54	56				
81	Sept. 19, 1877	do	Five sections Hot Springs Indian reservation.	7 and 8 west	15	00	63	}	}	}	50
Total					2,019	46	93		12,945	50	

HENRY M. ATKINSON,
Surveyor General.SURVEYOR GENERAL'S OFFICE,
Santa Fé, N. Mex., August 15, 1878.

B.—Statement of public surveys made under the acts of Congress of May 30, 1862, and March 3, 1872, in the district of New Mexico, during the fiscal year ending June 30, 1878.

Contract.		Contractors.	Character of survey.	Townships.	Ranges.	Surveyed.	Rate per mile.	Cost.	Remarks.
No.	Date.								
73	Apr. 24, 1877	A. W. Archibald	Exteriors	32 north.	Between 27 and 28 east.	<i>Mls. chs. lks.</i> 2 44 58	\$7	\$77 39	Transmitted June 15, 1878.
73	Apr. 24, 1877	do	do	32 north.	Between 26 and 27 east.	2 39 97			
73	Apr. 24, 1877	do	do	Between 31 and 32 north.	27 east	6 00 00			
73	Apr. 24, 1877	do	Closings on parallels	On north bound	ary of New Mexico.	20 24	6	189 34	Do.
73	Apr. 24, 1877	do	Subdivisional	32 north.	27 east	24 50 63			
73	Apr. 24, 1877	do	Closings on parallels	On north bound	ary of New Mexico.	53 77			
73	Apr. 24, 1877	do	Connections	Between 31 and 32 north.	28 east	6 00 00	7	125 97	Transmitted January 25, 1878.
80	Aug. 15, 1877	Elkins & Marmon	Exteriors	29 north	Between 27 and 28 east.	6 00 00			
80	Aug. 15, 1877	do	do	29 north	Between 26 and 27 east.	6 00 00			
80	Aug. 15, 1877	do	do	Between 29 and 30 north.	27 east	5 79 60	6	359 51	Do.
80	Aug. 15, 1877	do	Subdivisional	29 north	27 east	59 73 58			
82	Jan. 24, 1878	Taylor & McBroom	do	28 north.	27 east	59 64 22			
82	Jan. 24, 1878	do	Closings on parallels	do	do	35 97	6	361 50	Transmitted July 13, 1878.
82	Jan. 24, 1878	do	Exteriors	31 north.	Between 30 and 31 east.	6 00 00			
82	Jan. 24, 1878	do	do	31 north	Between 31 and 32 east.	6 00 00			
82	Jan. 24, 1878	do	do	Between 30 and 31 north.	31 east	6 02 64	7	672 27	Nearly ready for transmission.
82	Jan. 24, 1878	do	do	Between 31 and 32 north.	31 east	6 02 14			
82	Jan. 24, 1878	do	do	Between 30 and 31 north.	30 east	6 01 20			
82	Jan. 24, 1878	do	do	Between 31 and 32 north.	30 east	5 77 10	6	721 36	Do.
82	Jan. 24, 1878	do	Subdivisional	31 north.	31 east	60 20 41			
82	Jan. 24, 1878	do	do	31 north.	30 east	59 77 81			
						337 03 86		2,507 34	

SURVEYOR GENERAL'S OFFICE,
Santa Fé, N. Mex., August 15, 1878.

HENRY M. ATKINSON,
Surveyor General.

C.—List of surveyed townships and contents thereof in acres in the district of New Mexico at the close of the fiscal year ending June 30, 1878.

Whole number subdivided.	Township.	Range.	Private claims embraced.	Reservation embraced.	Township area surveyed.	Plats sent to Register.	Remarks.
341	.....	.....	360, 015. 45	13, 960. 00	7, 307, 157. 22	.....	Totals June 30, 1877.
342	29 north..	27 east ..	.....	.....	23, 026. 24	Jan. 24, 1878	.....
343	8 south..	7 west..	.....	.....	234. 20	Apr. 16, 1878	Recalled by direction of Commissioner.
344	8 south..	8 west..	.....	.....	13, 860. 53	Apr. 16, 1878	Do.
345	8 south..	9 east ..	.....	.....	12, 053. 45	May 15, 1878	.....
346	9 south..	15 east ..	.....	.....	2, 560. 00	May 15, 1878	.....
347	3 south..	25 east ..	.....	.....	12, 976. 50	May 15, 1878	.....
348	4 south..	25 east ..	.....	.....	22, 999. 05	May 15, 1878	.....
349	5 south..	25 east ..	.....	.....	23, 037. 62	May 15, 1878	.....
350	6 south..	25 east ..	.....	.....	20, 209. 71	May 15, 1878	.....
351	7 south..	25 east ..	.....	.....	22, 986. 27	May 15, 1878	.....
352	8 south..	25 east ..	.....	.....	22, 998. 64	May 15, 1878	.....
353	9 south..	25 east ..	.....	.....	23, 016. 55	May 15, 1878	.....
354	10 south..	25 east ..	.....	.....	23, 036. 39	.....	Ready for transmittal.
355	4 south..	26 east ..	.....	.....	23, 027. 70	May 15, 1878	.....
356	5 south..	26 east ..	.....	.....	23, 039. 81	May 15, 1878	.....
357	6 south..	26 east ..	.....	.....	20, 134. 43	May 15, 1878	.....
358	7 south..	26 east ..	.....	.....	22, 961. 59	May 15, 1878	.....
359	8 south..	26 east ..	.....	.....	22, 995. 29	May 15, 1878	.....
360	9 south..	26 east ..	.....	.....	23, 011. 68	May 15, 1878	.....
361	10 south..	26 east ..	.....	.....	23, 036. 97	May 15, 1878	.....
362	32 north..	27 east ..	.....	.....	9, 701. 41	June 21, 1878	Ready for transmittal.
363	28 north..	27 east ..	.....	.....	22, 889. 42	.....	.....
364	13 south..	4 west..	.....	.....	10, 712. 56	.....	Do.
365	15 south..	4 west..	.....	.....	7, 702. 94	.....	Do.
366	15 south..	5 west..	.....	.....	23, 046. 98	.....	Do.
367	16 south..	5 west..	.....	.....	23, 299. 13	.....	Do.
368	17 south..	5 west..	.....	.....	15, 089. 48	.....	Do.
369	29 north..	11 west..	.....	.....	.....	.....	Not platted; area not computed.
370	4 south..	19 west..	.....	.....	.....	.....	Do.
371	5 south..	19 west..	.....	.....	.....	.....	Do.
372	5 south..	20 west..	.....	.....	.....	.....	Do.
373	31 north..	30 east ..	.....	.....	22, 980. 04	.....	Ready for transmittal.
374	31 north..	31 east ..	.....	.....	23, 160. 97	.....	Do.
			360, 015. 45	13, 960. 00	7, 846, 942. 77	.....	Totals June 30, 1878.

HENRY M. ATKINSON,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Santa Fe, N. Mex., August 15, 1878.

D.—Private land claims surveyed and under contract for survey in the

Contract.		Claims surveyed.		Surveyed by—	Date of survey.	Number of miles.
No.	Date.	No.	Name.			
	1878.					<i>M. C. L.</i>
76	Aug. 8	34	Pedro Armendaris	Sawyer & White....	Jan., 1878	24 05 59
76	Aug. 8	49	B. M. Montaña <i>et al</i>	do	Sept., 1877	75 43 20
76	Aug. 8	50	Antonio Sedillo	do	Sept., 1877	58 57 41
76	Aug. 8	51	Nerio Antonio Montoya	do	Oct., 1877	10 13 35
76	Aug. 8	67	Ana de Sandoval y Manzanares..	do	Apr. and May, 1878	53 03 83
76	Aug. 8	78	Bartolomé Fernandez	do	Oct. and Nov., 1877	25 29 38
76	Aug. 8	79	Antonio Chaves	do	June, 1878	70 35 40
76	Aug. 8	95	Cevilleta, town of	do	Mar. and Apr., 1878	78 26 01
76	Aug. 8	99	Felipe Tafoya <i>et al</i>	do	Oct., 1877	24 15 26
76	Aug. 8	107	Socorro, town of	do	Mar., 1878	143 39 08
76	Aug. 8	S.	Laguna Indian Pueblo	do	Sept., 1877	56 16 53
	1877.					
77	Aug. 9	65	Juan de Gabaldon	Charles H. Fitch....		
77	Aug. 9	73	Pedro Martin	do	Nov., 1877	
	1878.					
78	Aug. 10	45	José Sutton	Stephen C. McElroy.	Dec., 1877	41 53 36
78	Aug. 10	53	Lorenzo Marquez	do	Feb., 1877	21 59 04
78	Aug. 10	69	Juan Salas <i>et al</i>	do	Nov., 1877	6 06 48
78	Aug. 10	70	Antonio Sandoval	do	Dec., 1877, & Jan., 1878	101 37 18
78	Aug. 10	71	Francisco Salazar <i>et al</i>	do		
78	Aug. 10	83	Bernalillo, town of	do	Oct., 1877	22 39 29
78	Aug. 10	97	Joaquin Mestas	do	Nov., 1877	9 77 92½
78	Aug. 10	101	Antonio Baca	do	Oct., 1877	36 51 05
78	Aug. 10	T.	Zia, Santa Ana & Jemez	do	Oct. and Nov., 1877	80 14 05
79	Aug. 10	52	Roque Lovato	Griffin & McMullen.	Sept., 1877	7 04 64
79	Aug. 10	54	Bernardino de Sena	do	Oct., 1877	6 00 00
79	Aug. 10	56	Gotera	do	Nov., 1877	8 55 69
79	Aug. 10	57	José F. Bacca y Terrus <i>et al</i>	do	Nov., 1877	6 26 50
79	Aug. 10	59	José Miguel de la Peña	do	Nov., 1877	8 23 50
79	Aug. 10	62	Cieneguilla tract	do	Oct., 1877	34 21 57
79	Aug. 10	63	Nicolas Ortiz	do	Nov., 1877	
79	Aug. 10	77	Ojo Caliente	do	Sept. and Oct., 1877	
79	Aug. 10	80	Juan de Mestas	do	May, 1878	
79	Aug. 10	81	Cuyamungue	do	Nov., 1877	1 37 67
79	Aug. 10	88	Santa Fé	do	Sept., 1877	20 60 26½
79	Aug. 10	92	Jacona	do	May, 1878	
79	Aug. 10	93	Cañon del Rio Colorado	do	Oct., 1877	
79	Aug. 10	102	San Marcos Pueblo	do	Nov., 1877	6 70 15
79	Aug. 10	105	Petaca	do	May, 1878	
80	Aug. 10	6	Braceto	Elkins & Marmon ..	Mar., 1878	
80	Aug. 10	15	Rincon del Rio Colorado	do	Sept. and Oct., 1877	221 09 22
80	Aug. 10	29	Antonchico, town of	do		
80	Aug. 10	58	Rancho del Rio Grande	do	Nov., 1877	
80	Aug. 10	61	Cebolla	do	Nov., 1877	23 20 34
80	Aug. 10	85	Doña Ana Bend	do	Mar., 1878	
80	Aug. 10	86	Messilla Colony	do	Mar., 1878	
80	Aug. 10	90	Refugio Colony	do	Mar., 1878	
80	Aug. 10	94	Vernal & Lopez	do	Oct. and Nov., 1877	90 61 70
80	Aug. 10	108	Vallecito de Lovato	do	June, 1878	
			Total			1,374 54 66½

SURVEYOR GENERAL'S OFFICE,
Santa Fé, N. Mex., August 15, 1878.

district of New Mexico during the fiscal year ending June 30, 1878.

Cost of survey.			Acres.	Survey approved.	Transmitted.	Remarks.
Field work.	Office work.	Total.				
				1878.	1878.	
\$385 12	\$40 00	\$425 12	95,030.67	July 12	July 13	Correction of former survey.
1,170 01	41 62	1,211 63	151,056.97	Mar. 6	Mar. 9	
863 78	54 16	917 94	88,079.78	Mar. 6	Mar. 9	
128 07	61 12	189 19	3,546.06	Mar. 6	Mar. 9	
848 16	57 07	905 23	89,403.40	.....	.....	Nearly ready for transmittal.
387 06	30 00	417 06	25,176.39	Mar. 6	Mar. 9	
.....	.....	.....	130,138.98	.....	.....	Nearly ready for transmittal.
1,243 77	52 99	1,296 76	224,770.13	.....	.....	Do.
387 01	30 00	417 01	22,578.12	Mar. 6	Mar. 9	
2,341 69	93 75	2,435 44	843,259.59	.....	.....	Nearly ready for transmittal.
857 47	48 90	906 37	125,225.18	Mar. 6	Mar. 9	
.....	.....	.....	.....	.....	.....	Not returned at date of making up report.
.....	.....	.....	.....	.....	.....	Not platted.
666 67	33 34	700 01	69,445.55	Feb. 20	Feb. 23	
.....	.....	.....	13,706.02	.....	.....	Nearly ready for transmittal.
98 56	50 00	148 56	436.41	Feb. 20	Feb. 23	
1,654 49	45 84	1,700 33	415,036.56	Feb. 20	Feb. 23	
.....	.....	.....	.....	.....	.....	Not platted.
359 86	34 00	393 86	11,674.37	Feb. 20	Feb. 23	
159 74	20 00	179 74	3,632.94	Feb. 20	Feb. 23	
598 00	29 17	627 17	43,653.03	Feb. 20	Feb. 23	
1,289 22	41 62	1,330 84	382,849.00	Feb. 20	Feb. 23	
130 91	35 00	165 91	1,619.86	July 5	July 6	
97 91	40 00	137 91	1,086.30	.....	.....	Awaiting result of protest.
141 93	45 00	186 93	2,571.00	.....	.....	Do.
110 11	35 00	145 11	1,589.87	July 5	July 6	
139 19	35 00	174 19	2,287.41	July 5	July 6	
574 03	60 00	634 03	43,961.54	July 5	July 6	
.....	.....	.....	.....	.....	.....	Not examined; recently returned.
.....	.....	.....	.....	.....	.....	Protest filed; corrected survey required.
23 94	20 00	43 94	36.00	.....	.....	Not platted.
416 20	70 00	486 20	17,361.11	July 5	July 6	Protest filed; under investigation.
.....	.....	.....	.....	.....	.....	Not examined fully; resurvey probably required.
149 35	30 00	179 35	1,890.62	July 5	July 6	Not examined.
.....	.....	.....	.....	.....	.....	Not platted.
.....	.....	.....	.....	.....	.....	Not examined; only recently returned.
3,545 46	.....	3,545 46	.....	.....	.....	Final plat not yet made for want of clerical force.
.....	.....	.....	.....	.....	.....	Resurvey not yet platted.
.....	.....	.....	.....	.....	.....	Protest filed; probably corrected survey required.
.....	.....	.....	17,159.57	.....	.....	Nearly ready for transmittal.
.....	.....	.....	.....	.....	.....	Not examined; only recently returned.
.....	.....	.....	.....	.....	.....	Do.
1,476 95	.....	1,476 95	.....	.....	.....	Do.
.....	.....	.....	.....	.....	.....	Survey not finally approved; account for survey transmitted as per Commissioner's letter, E, of May 28, 1878.
.....	.....	.....	.....	.....	.....	Not yet examined.
20,244 66	1,133 58	21,378 24	1,157,841.33	.....	.....	

HENRY M. ATKINSON,
Surveyor General.

E.—List of mineral and mill-site claims surveyed in the Territory of New Mexico during the year ending June 30, 1878, together with amount of deposit for office work, date of survey, &c.

Name of claim.	County located in.	Name of mining district.	Date of survey.	By whom surveyed.	Survey when filed.	Amount of deposit.	Remarks.
Star of the West.....	Grant County.....	Silver Flat.....	Sept. 25, 1877	Charles Ackley.....	.....	\$40 00	Ready for transmittal.
Pacific.....	do.....	do.....	Sept. —, 1877	do.....	.....	40 00	Defective in connection with established surveys.
Pacific South Extension.....	do.....	do.....	Sept. —, 1877	do.....	.....	40 00	Defective in connection with Pacific claim.
Ancheta mill site.....	do.....	Pinos Altos.....	Oct. 7, 1877	do.....	Oct. 18, 1877	40 00	Ready for platting.
Legal Tender.....	do.....	Silver Flat.....	May 2, 1877	do.....	Dec. 7, 1877	40 00	Defective in closings.
Ivanhoe copper mine.....	do.....	Santa Rita.....	May 22, 1878	do.....	June 20, 1878	.....	No deposit yet made.
San José copper mine.....	do.....	do.....	May 23, 1878	do.....	June 20, 1878	.....	No deposit yet made.
Total.....	.....	.....	.....	.....	.....	200 00	.....

HENRY M. ATKINSON,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Santa Fé, N. Mex., August 15, 1878.

F.—Mineral deputy surveyors in commission under the mining act of May 10, 1872, in the district of New Mexico on June 30, 1878.

Name.	Residence.	Commissioned.	Remarks.
William McMullen.....	Santa Fé, Santa Fé County.....	Oct. 3, 1872	Notified to give bond.
S. Howe Watts.....	do.....	Oct. 18, 1872	Do.
George Way.....	Socorro, Socorro County.....	Dec. 27, 1873	Do.
Lewis Kingman.....	Cimarron, Colfax County.....	Mar. 8, 1873	Do.
A. D. Thorne.....	Lemitar, Socorro County.....	Apr. 19, 1873	Do.
Walter G. Marmon.....	Laguna, Bernalillo County.....	Apr. 22, 1873	Do.
Robert G. Marmon.....	do.....	Apr. 23, 1873	Do.
William H. McBroom.....	Santa Fé, Santa Fé County.....	Apr. 24, 1877	Do.
Charles Ackley.....	Silver City, Grant County.....	May 2, 1877	Do.

HENRY M. ATKINSON,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Santa Fé, N. Mex., August 15, 1878.

G.—Statement of special deposits made by individuals for survey of public lands in the Territory of New Mexico during the two fiscal years ending June 30, 1878.

Date of deposit.	No. of certificate of deposit.	Depositor.	Tract of land.	For field work.	For office work.	Total deposit.	By whom surveyed.	Date of survey.	Expended for field work.	Expended for office work.	Total expended.	Balance unexpended.	When transmitted.
Feb. 27, 1877	...	Cruz Castañeda	Township 32 north, range 27 east.	\$300 00	\$100 00	\$400 00	A. W. Archibald, contract No. 73.	Aug. — to —, 1877	\$266 73	\$49 45	\$316 18	\$83 82	June 15, 1878
Apr. 25, 1877	...	W. M. Hall	Township 29 north, range 27 east.	490 00	75 00	565 00	Elkins & Marmon, contract No. 80.	Oct. 19 to 28, 1877	485 48	50 00	535 48	29 52	Jan. 25, 1878
June 11, 1878	9	Joseph W. Dwyer	Township 29 north, range 24 east.	185 00	15 00	200 00	Under contract.	.....	.....	.....	.....	.....	.....
June 12, 1878	10	John S. Delano	Township 29 north, range 24 east.	185 00	15 00	200 00	do.....	.....	.....	.....	.....	.....	.....
June 12, 1878	11	Gus C. Fitch	Township 29 north, range 25 east.	185 00	15 00	200 00	do.....	.....	.....	.....	.....	.....	.....
June 12, 1878	12	Daniel Troy, sr	Township 29 north, range 25 east.	90 00	10 00	100 00	do.....	.....	.....	.....	.....	.....	.....
June 12, 1878	13	Daniel Troy, jr	Township 29 north, range 25 east.	90 00	10 00	100 00	do.....	.....	.....	.....	.....	.....	.....
June 12, 1878	14	J. Shell Taylor	Township 28 north, range 27 east.	180 55	19 45	200 00	Taylor & McBroom, contract No. 82.	Mar. 4 to 14, 1878	180 75	16 79	197 54	2 46	July 13, 1878
June 12, 1878	15	Henry Spegle	Township 28 north, range 27 east.	180 55	19 45	200 00	Taylor & McBroom, contract No. 82.	Mar. 4 to 14, 1878	180 75	16 79	197 54	2 46	July 13, 1878
June 12, 1878	16	W. P. Duncan	Township 31 north, range 30 east.	180 55	19 45	200 00	Under contract.	.....	.....	.....	.....	.....	.....
June 12, 1878	17	John A. Hall	Township 31 north, range 30 east.	180 55	19 45	200 00	do.....	.....	.....	.....	.....	.....	.....
June 12, 1878	18	Al Jones	Township 31 north, range 30 east.	180 55	19 45	200 00	do.....	.....	.....	.....	.....	.....	.....
June 12, 1878	19	N. J. Hall	Township 31 north, range 31 east.	180 55	19 45	200 00	do.....	.....	.....	.....	.....	.....	.....
June 12, 1878	20	W. M. Hall	Township 31 north, range 31 east.	180 55	19 45	200 00	do.....	.....	.....	.....	.....	.....	.....
June 12, 1878	21	W. R. Mulkey	Township 31 north, range 31 east.	180 55	19 45	200 00	do.....	.....	.....	.....	.....	.....	.....
June 12, 1878	22	A. M. Hall	Township 31 north, range 31 east.	180 60	19 40	200 00	do.....	.....	.....	.....	.....	.....	.....
Total				3, 150 00	415 00	3, 565 00			1, 113 71	133 03	1, 246 74	118 26	

SURVEYOR GENERAL'S OFFICE,
Santa Fe, N. Mex., August 15, 1878.HENRY M. ATKINSON
Surveyor General.

H.—Statement of expenditures for salaries in the office of surveyor general of New Mexico during the fiscal year ending June 30, 1878.

Fiscal quarter.	Name.	Position.	Salary.	Time.		Amount.
				From—	To—	
First . . .	Henry M. Atkinson . . .	Surveyor general	\$2, 500	July 1	Sept. 30	\$625 00
First . . .	David J. Miller	Translator and chief clerk . . .	2, 000	July 1	Sept. 30	500 00
First . . .	Will M. Tipton	Draughtsman	1, 500	July 1	Sept. 30	375 00
First . . .	James M. Irwin	Clerk	1, 500	July 1	July 31	126 35
First . . .	L. M. Fitch	Clerk	1, 500	Aug. 1	Aug. 21	85 60
First . . .	J. R. Wallingford	Clerk	1, 500	Aug. 22	Sept. 30	162 96
Second . . .	Henry M. Atkinson . . .	Surveyor general	2, 500	Oct. 1	Dec. 31	625 00
Second . . .	David J. Miller	Translator and chief clerk . . .	2, 000	Oct. 1	Dec. 31	500 00
Second . . .	Will M. Tipton	Draughtsman	1, 500	Oct. 1	Dec. 21	375 00
Second . . .	J. R. Wallingford	Clerk	1, 500	Oct. 1	Dec. 31	375 00
Third . . .	Henry M. Atkinson . . .	Surveyor general	2, 500	Jan. 1	Mar. 31	625 00
Third . . .	David J. Miller	Translator and chief clerk . . .	2, 000	Jan. 1	Mar. 31	500 00
Third . . .	Will M. Tipton	Draughtsman	1, 500	Jan. 1	Mar. 31	375 00
Third . . .	J. R. Wallingford	Clerk	1, 500	Jan. 1	Mar. 31	375 00
Fourth . . .	Henry M. Atkinson . . .	Surveyor general	2, 500	Apr. 1	June 30	625 00
Fourth . . .	David J. Miller	Translator and chief clerk . . .	2, 000	Apr. 1	June 30	500 00
Fourth . . .	J. R. Wallingford	Draughtsman	1, 500	Apr. 1	June 30	375 00
Fourth . . .	Will M. Tipton	Clerk	1, 500	Apr. 1	May 31	251 40
Fourth . . .	Amado Chaves	Clerk	1, 500	June 1	June 30	123 60
	Total					7, 499 91

HENRY M. ATKINSON,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Santa Fé, N. Mex., August 15, 1878.

I.—Statement of incidental expenditures in the office of surveyor general of New Mexico during the fiscal year ending June 30, 1878.

Fiscal quarter.	Name.	Consideration.	Time.		Amount.	Vouchers.
			From—	To—		
First . .	Telesforo Jaramillo . . .	Rent of office	July 1	Sept. 30	\$120 00	
First . .	John Ludwig	Messenger services	July 1	Sept. 30	90 00	
First . .	Seligman Bros.	Fire wood			40 00	
First . .	Henry M. Atkinson . . .	Sundries			240 30	1, 2, 3, 4.
Second .	John Ludwig	Messenger services	Oct. 1	Dec. 31	90 00	
Second .	Telesforo Jaramillo . . .	Rent of office	Oct. 1	Dec. 31	103 00	
Second .	Henry M. Atkinson . . .	Sundries			228 00	1, 2, 3, 4, 5, 6, 7.
Second .	Seligman Bros.	Fire wood			191 21	
Second .	D. D. Elder & Co.	Stationery			184 08	
Third . .	John Ludwig	Messenger services	Jan. 1	Mar. 31	90 00	
Third . .	Telesforo Jaramillo . . .	Rent of office	Jan. 1	Mar. 31	120 00	
Third . .	Henry M. Atkinson . . .	Sundries			53 55	1, 2, 3.
Third . .	Jesus Baca	Fire wood			35 00	
Third . .	W. & L. E. Gurley	Surveying instruments			43 94	
Fourth .	Telesforo Jaramillo . . .	Rent of office	Apr. 1	June 30	120 00	
Fourth .	John Ludwig	Messenger services	Apr. 1	Apr. 27	26 70	
	Total				1, 739 82	
	Congressional appropriation of March 3, 1877				1, 500 00	
	Receipts from subrent of part of office building				240 00	
	Total receipts				1, 740 00	
	Total expenditures as above				1, 739 82	
	Reverting to the Treasury				18	

HENRY M. ATKINSON,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Santa Fé, N. Mex., August 15, 1878.

K.—Statement showing the condition of the several appropriations for the surveying service in the district of New Mexico at the close of the fiscal year ending June 30, 1878.

Appropriation for—	Amount.	Expended and covered by contract.	Reverting.	Remarks.
Survey of public lands, act March 3, 1877, and apportionment of Commissioner. (See letter E, June 29, also of September 8 and October 30, 1877.)	\$15,600 00	\$15,600 00	.....	Accounts for public surveys not all made up, hence amount expended not ascertained.
Survey of public lands under acts May 30, 1862, and March 3, 1872.	3,150 00	3,150 00	.....	Do.
Survey of private land claims. (See Commissioner's letter E, June 29, 1877.)	33,500 00	33,500 00	.....	Accounts for survey of private land claims not all made up, hence amount expended not ascertained.
Compensation of surveyor general, act March 3, 1877.	2,500 00	2,500 00	.....	
Compensation of clerks, act March 3, 1877.	5,000 00	4,999 91	\$0 09	
Office rent, stationery, messenger, &c., act March 3, 1877..... \$1,500	1,740 00	1,739 82	18	
Receipts from subrenting part of office building..... 240				
Receipts from deposits for office rents, acts May 30, 1862, and March 3, 1872.	415 00	133 03	.....	Balance reverting cannot be ascertained, as work is not all disposed of.

HENRY M. ATKINSON,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Santa Fé, N. Mex., August 15, 1878.

L.—Estimates of appropriations required for the surveying service in New Mexico for the fiscal year ending June 30, 1880.

Object of appropriation.	Amount.	Total.
ON SALARY ACCOUNT.		
Compensation of surveyor general.....	\$3,000	
Compensation of translator and chief clerk.....	2,000	
Compensation of two draughtsmen.....	3,000	
Compensation of four clerks.....	6,000	
		\$14,000
ON SURVEYING ACCOUNT.		
Survey of base, meridian, standard, and township exterior and subdivisional lines...	60,000	
Confirmed and unconfirmed private land claims which have been favorably reported for Congressional action.....	10,000	
		70,000
ON CONTINGENT-EXPENSE ACCOUNT.		
Fire-proof safe for keeping grant title papers, and office furniture.....	2,500	
Stationery, messenger, and other necessary expenses.....	2,000	
		4,500
Total.....		88,500

HENRY M. ATKINSON,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Santa Fé, N. Mex., August 15, 1878.

H.—Report of the surveyor general of Colorado.

SURVEYOR GENERAL'S OFFICE,
Denver, Colo., September 2, 1878.

SIR: I have the honor to submit herewith my annual report of the surveying service of this office, in duplicate, for the fiscal year ending June 30, 1878, together with map showing progress of public surveys and the usual tabular statements, as follows, viz:

A.—Statement of surveys made under the regular appropriation and the amount of accounts of the several deputies.

B.—Statement of surveys under act of May 30, 1862, and March 3, 1871, and the amount of the several accounts of deputies and depositors.

C.—Statement showing number of townships surveyed during the year, and the area of public land contained in the same.

D.—Statement of mining claims surveyed, together with amount deposited for office work for same.

E.—Statement showing amount of salaries paid surveyor general and clerks in his office for the year.

F.—Statement of amount expended for rent, messenger, stationery, &c.

G.—Statement of the private land claims surveyed during the year, with statement of account of deputy and other expenses.

Under the appropriation of \$35,000 for this surveying district, nineteen contracts were let for survey of agricultural and timbered lands in different parts of the State, and all the work has been completed in the field with the exception of one contract. All the returns and accounts have been forwarded to your office. Surveys were only made of such lands as were called for by actual settlers, for colonies, and for the State board of land commissioners.

A detailed statement of the accounts of the several deputies will be found under statement H.

Under statement B, it will be seen that \$3,571.93 was deposited by actual settlers for surveys under the acts of May 30, 1862, and March 3, 1871. I have furnished estimates to a number of other settlers, but on account of the stringency of the money market they have been unable to make the deposit.

It is a matter of regret that more liberal appropriations are not made to accommodate actual settlers upon the public lands.

Settlements in this State are far in advance of surveys, and almost every day I receive inquiries from settlers as to when surveys will be made in their locality. They do not like to make permanent improvements before survey, for they are likely to be compelled to move their fences and houses when the lines are run.

I know of an instance where two claimants employed a county surveyor to survey their claims in an unsurveyed township, upon which they erected expensive dwellings and other improvements, and when the township was surveyed by this office all the improvements of both claimants, who had become enemies to each other, were found to be on the same 40 acres tract. The embarrassment can be easily understood.

If Congress cannot be induced to make more liberal appropriations, it would assist depositors in raising money if the certificates of deposit were made transferable. An act covering the ground passed the Senate last winter, but was not reached in the House. I hope such a law will be passed at the next session.

Emigration to the State has been large, and includes all classes of merchants, mechanics, and farmers. It is a fact that a large number of farmers have opened new farms during the year and more than double the amount of land has been cultivated this year over last year. It is estimated by good judges that the wheat crop of this year will be over one million of bushels, and that fully one-half of this will be exported, being more than double the export of any previous year. Arrangements have been made to ship wheat to Chicago and New York, and it is believed this can be done at a good profit to the producer, as a large number of cars on our railroads go east empty; grain can be shipped at small expense, and as our yield per acre is fully double that of the States east of the Missouri River, wheat can be shipped in successful competition with those States.

More than 200 miles of railroad have been built in the State since my last annual report, and large forces of men are now engaged in grading for the several lines of road which are pushing westward. The Denver and Rio Grande road has ironed and equipped 30 miles of their road from Garland to Alamosa, on the Rio Grande River, and have since graded about 35 miles to the south boundary of the State, and are pushing the grade south toward Santa Fé, N. Mex., to which point they expect to have the cars running within a year.

The Atchison, Topeka and Santa Fé Railroad has graded, ironed, and equipped 70 miles of road from La Junta, on the Arkansas River, in the direction of Trinidad, and have their graders at work on the line to Trinidad and Santa Fé. They are also grading in the valley of the Arkansas River above the Grand Cañon, through which they propose to pass on their way to Leadville and the West.

The Colorado Central road, which, at date of my last report, were grading their line from Longmont, Color., to Cheyenne, Wyo. (70 miles), have since that date ironed and equipped the line and have been running regularly since its completion. This line has opened up some of the best and most productive lands in the State in the valleys of Big and Little Thompson Creeks and the Cache à la Poudre Valley and Saint Vrain.

The Denver, South Park and Pacific Railroad has ironed and equipped 42 miles of their road through the Platte Cañon during the year, and their graders are pushing the work forward toward Leadville, to which point they expect to have the cars

running within six months or a year. This road, in the first 20 miles from Denver, passes through some of the best agricultural lands of the State. At the Platte Cañon it strikes large quantities of coal, lime, gypsum, and building stone, all of which find a ready market in Denver. In the cañon it passes through large forests of fine timber, where lumber, railroad ties, and wood can be had in almost inexhaustible quantities. A few miles farther on, the road will strike the mining districts of Hall's Gulch, Fairplay, Buckskin Joe, Mount Lincoln, and Leadville, its present objective point.

The following estimates are submitted for this surveying district for the fiscal year ending June 30, 1880:

For salaries:	
Salary of surveyor general.....	\$3,000 00
Salary of chief clerk.....	1,800 00
Salary of principal draughtsman.....	1,500 00
Salary of assistant draughtsman.....	1,500 00
Salary of two transcribing clerks, at \$1,500.....	3,000 00
Total for salaries.....	10,800 00
For incidentals:	
For rent, stationery, messengers, fuel, &c.....	3,000 00
For surveys:	
Survey of 400 miles standard lines, at \$16.....	6,400 00
Survey of 2,000 miles exterior township lines, at \$14.....	28,000 00
Survey of 7,000 miles section lines, at \$10.....	70,000 00
Total for surveys.....	104,400 00

The estimates for surveys are for the purpose of extending the surveys into the North Park, in the Middle Park, on Bear River, at various points in the San Juan country, on the head of the Gunnison River, the Pagosa Springs, and the numerous valleys at different points in the mountains, for the accommodation of *bona fide* settlers on the agricultural and timbered lands and of the miners in locating lodes and placer claims. These surveys will cover only lands claimed by actual settlers, and lands of which the State board of land commissioners wish to make selections for the State. I repeat what I said in the letter accompanying my estimates for last year, that there are more than one hundred townships in the State which should be subdivided to accommodate actual settlers who have resided on their claims for from one to five years and who are anxious to secure title to their lands so that they may know where to place their improvements. They feel loath to build houses and make other necessary improvements until their lands are surveyed.

The amount estimated for clerk hire is quite important, as the \$3,000 appropriation last year was not sufficient and we are gradually and surely falling more and more in arrears.

The amount for incidentals should not be less than the amount submitted in my estimate. In regard to arrears of office work I have to say that the descriptive lists are four years in arrears. The connected map of mining claims it will require several months to complete, and the field notes of the survey of the past year are yet to be arranged for binding, and when bound, to be indexed.

Very respectfully, your obedient servant,

WM. L. CAMPBELL,
Surveyor General of Colorado.

Hon. J. A. WILLIAMSON,
Commissioner General Land Office.

A.—Statement of surveys made under the regular appropriation and accounts of the several deputies for the fiscal year ending June 30, 1878.

1877.			1877.			
Sept.	28	Benjamin M. Whittemore	\$1,060 12	July 1	By appropriation	\$35,000 00
Oct.	12	John K. Ashley	2,061 27			
	18	A. W. Brewster	552 69			
	29	John K. Ashley	600 94			
Nov.	1	Adams M. Fahringer	1,460 22			
	1	E. K. Stimson	601 75			
	16	A. W. Brewster	483 75			
	24	Fowler & Colby	838 80			
	24	T. H. Lowe	367 60			
	24	Brewster & Hunt	329 52			
	27	J. S. Fahringer	1,765 65			
	27	A. M. Fahringer	721 87			
	28	D. C. Oakes	2,192 75			
Dec.	19	J. K. Ashley	2,194 31			
	29	T. B. Medary	4,834 17			
1878.						
Jan.	3	J. S. Fahringer	2,516 67			
	4	F. W. Beebee	738 26			
	4	D. C. Oakes	2,879 96			
	10	Beebee & Lowe	836 13			
	24	E. H. Kellogg	2,545 87			
March	11	J. K. Ashley	1,084 19			
	26	J. S. Fahringer	640 56			
April	11	J. P. Maxwell	1,837 85			
May	28	Fowler & Colby	638 13			
June	25	J. S. Fahringer	301 99			
July	18	Brewster & Hunt	211 99			
June	[30	Balance to be applied on contract No. 332; survey not yet returned.	702 99			
			35,000 00			35,000 00

B.—Statement of surveys made under the acts of Congress of May 30, 1862, and March 3, 1872, and the accounts of the several deputies and depositors for excess for the fiscal year ending June 30, 1878.

1877.			1878.		1878.	
Sept.	10	Charles A. Wheeler.....	\$360 24	June 30	By individual deposit.....	\$3,571 93
	10	William W. Outcalt (excess)...	24 76			
Aug.	22	Fred. C. Morse	358 45			
	22	Chapin Moore (excess)	26 55			
Sept.	14	George D. Nickel	447 40			
	14	S. P. Jones (excess)	27 60			
	27	William M. May	605 62			
	27	Richard W. May (excess)	25 38			
Oct.	8	George L. Scott (deposit re- turned).	200 00			
	8	James D. Scott (deposit re- turned).	200 00			
	8	E. H. Cooper (deposit re- turned).	69 00			
1878.						
Jan.	26	T. L. Brandegee.....	599 55			
	26	George T. Phillips (excess)...	25 45			
May	8	James P. Maxwell.....	51 93			
		Surveys not completed.	550 00			
			3,571 93			3,571 93

C.—Statement showing number of townships surveyed during the year ending June 30, 1878, and area of public land contained in the same.

Township.	Range.	Acres.	Township.	Range.	Acres.
18 south	71 west	23,009.63	11 north	70 west	23,078.44
1 south	42 west	15,190.52	3 north	71 west	22,882.81
3 south	46 west	23,110.06	9 north	71 west	23,058.36
2 south	43 west	23,144.77	14 south	70 west	23,084.62
3 south	44 west	23,176.40	10 north	71 west	23,064.45
1 south	44 west	22,617.09	21 south	71 west	22,990.11
14 south	77 west	22,822.58	10 north	72 west	23,075.50
37 south	15 west	23,006.56	7 north	85 west	22,909.99
15 south	69 west	22,997.86	7 north	86 west	22,920.58
4 north	72 west	24,097.15	7 north	87 west	22,920.86

C.—Statement showing number of townships surveyed, &c.—Continued.

Township.	Range.	Acres.	Township.	Range.	Acres.
6 north	88 west	23, 020. 38	12 north	70 west	11, 722. 58
6 north	89 west	22, 908. 96	4 north	71 west	22, 558. 28
7 north	90 west	22, 992. 81	12 north	71 west	11, 598. 78
5 north	90 west	23, 058. 04	11 north	71 west	23, 068. 94
6 north	91 west	23, 078. 82	13 south	71 west	23, 146. 07
4 south	72 west	23, 972. 56	11 north	72 west	23, 006. 55
2 south	42 west	15, 688. 52	13 south	72 west	23, 145. 95
3 south	45 west	23, 041. 02	6 north	85 west	22, 900. 71
5 south	43 west	23, 073. 67	6 north	86 west	22, 973. 01
2 south	44 west	23, 083. 14	6 north	87 west	22, 982. 01
12 south	68 west	23, 500. 47	7 north	89 west	23, 000. 21
1 north	81 west	23, 106. 62	5 north	89 west	23, 045. 87
26 south	68 west	23, 115. 18	6 north	90 west	23, 004. 94
21 south	69 west	23, 158. 53	7 north	91 west	22, 977. 80
10 north	70 west	23, 052. 63			

SURVEYS FROM NEW MEXICO MERIDIAN.

41 north	1 west	23, 040. 90	41 north	2 west	22, 854. 14
39 north	5 east	23, 330. 49			

D.—Statement of mineral claims surveyed during the fiscal year ending June 30, 1878, together with the amount deposited for office work for the same.

Number.	District.	Name of lode.	Date of approval.	Location.	Amount of deposit.
460	1	Delaware and mill site	Jan. 8, 1878	Gilpin County	\$16 00
478	1	Prize Extension	July 2, 1877	do	16 00
479	1	Stewart	Aug. 23, 1877	do	16 00
480	1	Comstock	Sept. 20, 1877	do	16 00
481	1	Clipper	Sept. 20, 1877	do	16 00
482	1	Topeka	Aug. 29, 1877	do	16 00
483	1	Ben. J.	Aug. 17, 1877	do	25 00
484	1	Prize	Aug. 29, 1877	do	25 00
485	1	Roderick Dhu	Sept. 10, 1878	do	25 00
486	1	Fennedy and mill site	Aug. 23, 1877	do	25 00
487	1	Jackson	Oct. 1, 1877	do	25 00
488	1	Williams	Oct. 1, 1877	do	25 00
489	1	Bobtail	Oct. 24, 1877	do	25 00
490	1	Wain	Mar. 28, 1878	do	25 00
491	1	Alabama	Dec. 19, 1877	do	25 00
492	1	Kans:	Mar. 27, 1878	do	25 00
493	1	Dallas	Jan. 3, 1878	do	25 00
494	1	German	Jan. 4, 1878	do	25 00
495	1	Virginia	Feb. 8, 1878	do	25 00
496	1	Minarei	Mar. 7, 1878	do	25 00
497	1	Perrin	Mar. 1, 1878	do	25 00
499	1	Little Giant	Mar. 27, 1878	do	25 00
501	1	Burroughs	Apr. 17, 1878	do	35 00
502	1	Smith	May 11, 1878	do	25 00
503	1	S. C. Booth	Apr. 25, 1878	do	25 00
504	1	Northrop	Apr. 25, 1878	do	25 00
505	1	Briggs	May 17, 1878	do	25 00
507	1	Hunter	June 27, 1878	do	25 00
299	2	Placer	Nov. 5, 1877	Clear Creek County	16 00
597	2	Georgetown silver	July 16, 1877	do	16 00
601	2	Crown Point and Virginia	May 8, 1878	do	16 00
632	2	Johnson	July 16, 1877	do	16 00
686	2	Placer	July 3, 1877	do	16 00
687	2	Gladstone	Feb. 25, 1878	do	16 00
693	2	Chelsea Beach	July 16, 1877	do	16 00
694	2	Investigator	July 23, 1877	do	16 00
695	2	Thunderbolt	July 16, 1877	do	16 00
696	2	Redgauntlet	July 16, 1877	do	16 00
697	2	Pluto	July 16, 1877	do	16 00
701	2	New Brunswick	Feb. 26, 1878	do	16 00
704	2	Mill site	July 3, 1877	do	16 00
707	2	Lyon	Sept. 1, 1877	do	16 00
709	2	Little Emma	July 19, 1877	do	16 00
710	2	Aspinwall and mill site	Aug. 15, 1877	do	16 00
711	2	Durango and mill site	Oct. 3, 1877	do	16 00
713	2	E. Keith No. 3	July 19, 1877	do	16 00
715	2	Clara	July 27, 1877	do	16 00

D.—Statement of mineral claims surveyed, &c.—Continued.

Number.	District.	Name of lode.	Date of approval.	Location.	Amount of deposit.
716	2	Ed. Graves	July 27, 1877	Clear Creek County	\$16 00
717	2	Mountain Bear	Aug. 2, 1877	do	16 00
718	2	Mill site	Aug. 10, 1877	do	16 00
719	2	Actna	Apr. 8, 1878	do	16 00
722	2	Ida	Aug. 15, 1877	do	25 00
723	2	Mill site	Aug. 29, 1877	do	25 00
724	2	do	Aug. 29, 1877	do	25 00
725	2	Silver coin	Sept. 1, 1877	do	25 00
726	2	Trinidad and mill site	Sept. 1, 1877	do	25 00
727	2	Blue Jacket	Aug. 29, 1877	do	25 00
728	2	Mill site	Aug. 25, 1877	do	25 00
729	2	Freeland	Sept. 10, 1877	do	25 00
730	2	Eagle and mill site	Sept. 22, 1877	do	25 00
731	2	Silver Rock	Sept. 17, 1877	do	25 00
732	2	Carbon	Sept. 10, 1877	do	25 00
733	2	Puzzler	Sept. 17, 1877	do	25 00
735	2	Vulcan	Oct. 19, 1877	do	25 00
736	2	Hobart	Nov. 23, 1877	do	25 00
737	2	Mill site	Oct. 22, 1877	do	25 00
738	2	Lion and mill site	Oct. 24, 1877	do	25 00
739	2	Dexter	Oct. 31, 1877	do	25 00
740	2	North American	Nov. 5, 1877	do	25 00
741	2	Reindeer	Nov. 9, 1877	do	25 00
742	2	Adriatic	Nov. 21, 1877	do	25 00
743	2	Morris	Nov. 24, 1877	do	25 00
744	2	Tiger Extension	Nov. 19, 1877	do	25 00
745	2	Independence	Dec. 12, 1877	do	25 00
746	2	Montreal	Jan. 5, 1878	do	25 00
747	2	Backbone	Jan. 9, 1878	do	25 00
748	2	Green Tree	Dec. 21, 1877	do	25 00
749	2	Great Eastern	Dec. 27, 1877	do	25 00
750	2	Great Western	Dec. 27, 1877	do	25 00
751	2	Muldoon	Jan. 16, 1878	do	25 00
752	2	Elephant	Jan. 26, 1878	do	25 00
753	2	Sub-Treasury	Jan. 29, 1878	do	25 00
754	2	Big Chief	Jan. 26, 1878	do	25 00
755	2	J. A. Hawckes	Jan. 29, 1878	do	25 00
756	2	Shenandoah Valley	Feb. 13, 1878	do	25 00
757	2	Golden Eagle	May 9, 1878	do	25 00
758	2	Henry	Feb. 7, 1878	do	25 00
759	2	Star	Mar. 27, 1878	do	25 00
760	2	Cash	Mar. 9, 1878	do	25 00
761	2	Black Extension No. 1 W	Mar. 13, 1878	do	25 00
762	2	do	Mar. 16, 1878	do	25 00
763	2	Wisconsin Central	Mar. 21, 1878	do	25 00
764	2	Hidden Treasure	Mar. 23, 1878	do	25 00
765	2	Joe Reynolds No. 1	Apr. 8, 1878	do	25 00
766	2	Joe Reynolds No. 2	Apr. 8, 1878	do	25 00
767	2	Joe Reynolds No. 3	Mar. 27, 1878	do	25 00
768	2	Joe Reynolds No. 4	Apr. 8, 1877	do	25 00
769	2	Frica	Mar. 25, 1878	do	25 00
770	2	Morning Star	Mar. 23, 1878	do	25 00
771	2	Alpha	Mar. 26, 1878	do	25 00
772	2	Pio Nino	Apr. 17, 1878	do	25 00
773	2	Placer	Apr. 29, 1878	do	25 00
775	2	Solid Muldoon	Apr. 26, 1878	do	25 00
776	2	Hub	Mar. 29, 1878	do	25 00
777	2	Kanawha	June 27, 1878	do	25 00
778	2	Wash. Lewis	Apr. 25, 1878	do	25 00
779	2	Silver Chain	May 6, 1878	do	25 00
780	2	J. Q. A. Nadenbruch	May 9, 1878	do	25 00
781	2	Trio	May 21, 1878	do	25 00
782	2	La Fayette	June 14, 1878	do	25 00
783	2	May Flower	June 12, 1878	do	25 00
784	2	Charter Oak	June 3, 1878	do	25 00
785	2	Champion	June 12, 1878	do	25 00
786	2	Excelsior	June 3, 1878	do	25 00
787	2	Mill site	June 15, 1878	do	25 00
124	3	Homestake and mill site	Feb. 13, 1878	Lake County	16 00
234	3	Phillips	Aug. 23, 1877	Park County	16 00
337	3	Camp Bird	July 21, 1877	do	16 00
238	3	Keystone	July 21, 1877	do	16 00
239	3	Cincinnati	Sept. 10, 1877	do	25 00
240	3	Woodchuck	Aug. 25, 1877	Summit County	25 00
241	3	Walker	Aug. 25, 1877	do	25 00
242	3	Robley	Oct. 17, 1877	do	25 00
243	3	Pongue	Sept. 6, 1877	Park County	25 00

D.—Statement of mineral claims surveyed, &c.—Continued.

Number.	District.	Name of lode.	Date of approval.	Location.	Amount of deposit.
244	3	Venus.....	Aug. 25, 1877	Summit County.....	\$25 00
246	3	Chicago.....	Oct. 6, 1877	Park County.....	25 00
247	3	Placer.....	Sept. 27, 1877	do.....	25 00
248	3	Polaris.....	Sept. 27, 1877	do.....	25 00
249	3	Iron Dyke.....	Sept. 27, 1877	do.....	25 00
250	3	Friday.....	Sept. 27, 1877	do.....	25 00
251	3	Undercliff.....	Sept. 27, 1877	do.....	25 00
252	3	Faint Hope.....	Nov. 5, 1877	Lake County.....	25 00
253	3	I. D. Dana.....	Nov. 5, 1877	do.....	25 00
255	3	Placer.....	Feb. 8, 1878	do.....	25 00
256	3	Belcher.....	Nov. 7, 1877	do.....	25 00
257	3	Coney.....	Nov. 7, 1877	Park County.....	25 00
258	3	Old North State.....	Nov. 1, 1877	do.....	25 00
259	3	Pinnacle.....	Dec. 20, 1877	Lake County.....	25 00
265	3	Erie and mill site.....	Nov. 15, 1877	Summit County.....	25 00
266	3	Radical, jr., and mill site.....	Nov. 15, 1877	do.....	25 00
267	3	Erie and mill site.....	Nov. 15, 1877	do.....	25 00
268	3	Radical and mill site.....	Nov. 15, 1877	do.....	25 00
269	3	Pogue.....	Dec. 3, 1877	Park County.....	25 00
271	3	do.....	Mar. 5, 1878	Lake County.....	25 00
272	3	Keystone.....	Jan. 25, 1878	Park County.....	25 00
274	3	Seventy-six.....	Mar. 19, 1878	Lake County.....	25 00
275	3	Placer.....	Mar. 18, 1878	do.....	25 00
277	3	Iron Hat.....	Mar. 6, 1878	do.....	25 00
278	3	H. D.....	Mar. 14, 1878	do.....	25 00
279	3	Carbonate.....	Mar. 4, 1878	do.....	25 00
280	3	Shamrock.....	Feb. 27, 1878	do.....	25 00
281	3	Placer.....	May 2, 1878	do.....	25 00
283	3	do.....	May 28, 1878	do.....	25 00
284	3	Charlestown.....	June 10, 1878	do.....	25 00
285	3	Young America.....	May 28, 1878	do.....	25 00
286	3	New Discovery.....	May 13, 1878	do.....	25 00
287	3	Pine.....	May 21, 1878	do.....	25 00
288	3	Chrysolite.....	May 31, 1878	do.....	25 00
272	4	Franklin.....	Aug. 31, 1877	Boulder County.....	16 00
311	4	Stoughton.....	Sept. 14, 1877	do.....	16 00
322	4	Utica and mill site.....	July 2, 1877	do.....	16 00
325	4	Young America.....	July 5, 1877	do.....	16 00
335	4	Spur.....	Aug. 7, 1877	do.....	16 00
336	4	Kekionga.....	July 21, 1877	do.....	16 00
337	4	Five Twenty.....	Aug. 10, 1877	do.....	16 00
339	4	Webster City.....	Mar. 20, 1878	do.....	16 00
340	4	Grand Trunk.....	Mar. 20, 1878	do.....	16 00
342	4	Hawkeye.....	July 27, 1877	do.....	16 00
343	4	Indian Girl.....	Nov. 8, 1877	do.....	25 00
344	4	New York and mill site.....	Jan. 19, 1878	do.....	25 00
345	4	Pride of the Mountains.....	Aug. 7, 1877	do.....	25 00
346	4	East Idaho.....	Sept. 14, 1877	do.....	25 00
347	4	Yellow Jacket No. 2.....	Sept. 6, 1877	do.....	25 00
348	4	Syracuse.....	Oct. 2, 1877	do.....	25 00
349	4	Snowflake.....	Oct. 2, 1877	do.....	25 00
350	4	Seek no Farther.....	Oct. 26, 1877	do.....	25 00
351	4	Phil. Sheridan No. 2.....	Nov. 22, 1877	do.....	25 00
352	4	Kansas City.....	Dec. 17, 1877	do.....	25 00
353	4	Alturas.....	Jan. 21, 1878	do.....	25 00
354	4	Jno. A. Dix.....	Dec. 3, 1877	do.....	25 00
355	4	Mair Pointon.....	Dec. 17, 1877	do.....	25 00
356	4	Grand Central.....	Dec. 13, 1877	do.....	25 00
357	4	Little Dorritt.....	Jan. 3, 1878	do.....	25 00
358	4	Sac and Fox.....	Feb. 14, 1878	do.....	25 00
359	4	Charcoal.....	Jan. 15, 1878	do.....	25 00
360	4	Grant.....	Jan. 24, 1878	do.....	25 00
361	4	Placer.....	Apr. 9, 1878	do.....	25 00
362	4	Triune.....	Mar. 12, 1878	do.....	25 00
363	4	Cold Springs No. 2 and mill site.....	Apr. 8, 1878	do.....	25 00
364	4	Mystic.....	Jan. 14, 1878	do.....	25 00
365	4	Magnolia.....	Apr. 26, 1878	do.....	25 00
366	4	Snowy Range.....	Apr. 26, 1878	do.....	25 00
367	4	Matte.....	June 13, 1878	do.....	25 00
110	7	Jno. S. Cook.....	Oct. 19, 1877	Hinsdale County.....	16 00
119	7	Lyon.....	Sept. 14, 1877	San Juan County.....	16 00
146	7	Bullion.....	Aug. 23, 1877	Ouray County.....	16 00
147	7	Ule.....	Aug. 22, 1877	Hinsdale County.....	16 00
148	7	Ute.....	Aug. 27, 1877	do.....	16 00
151	7	Roaring Ranger and mill site.....	Aug. 2, 1877	San Juan County.....	16 00
152	7	American Eagle.....	Sept. 6, 1877	Hinsdale County.....	25 00
154	7	Regulator and mill site.....	Aug. 31, 1877	San Juan County.....	25 00

D.—Statement of mineral claims surveyed, &c.—Continued.

Number.	District.	Name of lode.	Date of approval.	Location.	Amount of deposits.
155	7	Bowery	Sept. 6, 1877	San Juan County	\$25 00
156	7	Mother Clime	Oct. 10, 1877	Ouray County	25 00
157	7	Royal Albert	Oct. 10, 1877	do	25 00
158	7	Duke of Edinburgh	Oct. 10, 1877	do	25 00
159	7	Michael Breon	Oct. 10, 1877	do	25 00
160	7	Circassian	Oct. 19, 1877	do	25 00
161	7	Imogene	Dec. 11, 1877	do	25 00
162	7	Highland Lassie	Dec. 11, 1877	do	25 00
163	7	Caribow	Dec. 11, 1877	do	25 00
164	7	Black Eye Girl	Dec. 11, 1877	do	25 00
165	7	Pocahontas	Dec. 11, 1877	do	25 00
166	7	Seven Thirty	Dec. 11, 1877	do	25 00
167	7	Chief Deposit	Dec. 11, 1877	do	25 00
168	7	Potosi	Dec. 11, 1877	do	25 00
169	7	Little Nation and mill site	Sept. 14, 1877	San Juan County	25 00
170	7	Victory	Oct. 13, 1877	do	25 00
171	7	Adelpheh	Oct. 13, 1877	do	25 00
172	7	Dolly Varden	Oct. 20, 1877	Hinsdale County	25 00
173	7	Moultrie	Nov. 2, 1877	San Juan County	25 00
174	7	Peerless	Nov. 7, 1877	do	25 00
175	7	Royal Consort	Oct. 30, 1877	Ouray County	25 00
176	7	Almont	Nov. 19, 1877	San Juan County	25 00
177	7	Belmont	Nov. 4, 1877	do	25 00
178	7	Empire State	Nov. 16, 1877	do	25 00
179	7	Alaska	May 21, 1878	Ouray County	25 00
180	7	Ocapulca	May 15, 1878	San Juan County	25 00
181	7	Jno. Wesley	June 6, 1878	do	25 00
182	7	Queen Mary	June 6, 1878	do	25 00
183	7	Davenport	June 6, 1878	do	25 00
184	7	Mound	May 29, 1878	do	25 00
185	7	Starlight	June 1, 1878	do	25 00
189	7	Cimarron	Nov. 27, 1877	Ouray County	25 00
190	7	Bradley	Nov. 28, 1877	do	25 00
191	7	Florence Placer	Dec. 18, 1877	San Juan County	25 00
192	7	Pandora	Jan. 18, 1878	Ouray County	25 00
193	7	Oriental	Jan. 18, 1878	do	25 00
194	7	Ohio Placer	Jan. 18, 1878	do	25 00
195	7	Bonanza	Jan. 14, 1878	San Juan County	25 00
196	7	Number 1 and mill site	Dec. 15, 1877	do	25 00
197	7	American Flag	Jan. 11, 1878	Ouray County	25 00
199	7	Aspen	Nov. 21, 1877	San Juan County	25 00
200	7	No. 1	Dec. 24, 1877	Ouray County	25 00
201	7	No. 2	Dec. 24, 1877	do	25 00
202	7	No. 3	Dec. 26, 1877	do	25 00
203	7	No. 4	Jan. 8, 1878	do	25 00
204	7	Maid of the Mist	Dec. 10, 1877	San Juan County	25 00
205	7	J. W. Young	Jan. 22, 1878	do	25 00
206	7	Black Spar	June 1, 1878	do	25 00
207	7	Jenny Parker	Feb. 9, 1878	do	25 00
208	7	Grand View	June 25, 1878	Ouray County	25 00
209	7	Park Placer	June 25, 1878	do	25 00

E.—Statement showing amount of salaries paid surveyor general and clerks in his office for the fiscal year ending June 30, 1878.

D.R.

C.R.

1877.			1877.		
Sept. 30	Paid from regular appropriations, salaries:		June 30	By regular appropriation	\$5,500 00
Sept. 30	First quarter	\$1,920 00		Balance from last fiscal year	5,580 22
Dec. 31	Second quarter	2,200 00		By amount special deposit, mining surveys	6,041 00
1878.				By surveys, township	130 00
Apr. 1	Third quarter	755 00		By railroad lands	439 78
June 30	Fourth quarter	625 00		By Vigil and St. Vrain grant	67 99
	Paid from special deposit, salaries:				
1877.					
Sept. 30	First quarter	1,170 00			
Dec. 31	Second quarter	1,165 00			
1878.					
Apr. 1	Third quarter	2,590 00			
June 30	Fourth quarter	2,568 60			
	Balance	4,765 39			
		17,758 99			17,758 99

F.—Statement showing amount expended for rent of office, books, stationery, fuel, and other incidental expenses for the fiscal year ending June 30, 1878.

DR.			CR.		
1877.			1877.		
Sept. 30	To expenses first quarter	\$654 40	June 30	By regular appropriation	\$1,500 00
Dec. 31	To expenses second quarter	383 31	1878.		
1878.			Apr. 1	By special deposit fund	125 60
Apr. 1	To expenses third quarter	380 60	June 30	do	118 85
June 30	To expenses fourth quarter	368 85		By deficiency	42 71
		1,787 16			1,787 16

G.—Statement showing amount expended in survey of private land grants for the fiscal year ending June 30, 1878.

DR.			CR.		
1877.			1877.		
Nov. 8	E. H. Kellogg, survey of Sangro de Cristo grant	\$3,250 11	June 29	By appropriation	\$2,000 00
Oct. 17	Paid for printing	18 60	Dec. 17	By appropriation (No. 2536) . .	2,000 00
	Balance	731 29			
		4,000 00			4,000 00

I.—Report of the surveyor general of Montana.

UNITED STATES SURVEYOR GENERAL'S OFFICE,
Helena, Mont., August 28, 1878.

SIR: In compliance with instructions in your letter E, dated May 1, 1878, I have the honor to submit herewith my annual report of the surveying operations in this district, with accompanying statements, for the fiscal year ending June 30, 1878.

SURVEYS.

The following base, standard, and meridian lines have been established during the fiscal year, viz: The base line through a portion of range No. 16 east, and ranges Nos. 17, 18, 19, 20, 21, 22, 23, 24, and 25 east. The first standard parallel north through a portion of range Nos. 13 east, ranges Nos. 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32 east, and a portion of range No. 33 east, to the point of its intersection with the Yellowstone River.

The second standard parallel north through a portion of range No. 32 east, ranges Nos. 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46 east, and a portion of range No. 47 east, to the point of its intersection with the Yellowstone River.

The third standard parallel north through a portion of ranges Nos. 8 and 9 west.

The Blackfoot guide meridian through a portion of township No. 12 north, and townships Nos. 13 and 14 north between ranges Nos. 8 and 9 west.

The Judith guide meridian through townships Nos. 5 and 6 north, between ranges Nos. 15 and 16 east. The Valley Creek guide meridian through townships Nos. 1 and 2 south, and Nos. 1, 2, and 3 north, between ranges Nos. 20 and 21 east.

The Buffalo Creek guide meridian through townships Nos. 5, 6, 7, and 8 north, between ranges Nos. 32 and 33 east.

I entered upon my official duties October 8, 1877, and at that date, contracts for the entire amount of the appropriation for the fiscal year, viz, \$17,700, had been made by my predecessor.

The unfulfilled portion of contract No. 77, dated July 21, 1877, with Demas L. McFarland, United States deputy surveyor, was canceled by me January 5, 1878, with the consent of himself and bondsmen, and subject to your approval. Said approval was duly received, dated January 24, 1878. I entered into a new contract, No. 79, with the same deputy, March 5, 1878, for the survey of portions of the base line and first and second standard parallels north, with guide meridians connecting same, &c., for the purpose of exploring the valley of the Yellowstone River, and establishing standard lines, from which subsequent surveys could be extended. This action was taken in answer to petitions, signed by a large number of actual settlers in the Yellowstone Valley, requesting that the public lands in that portion of Montana should be surveyed, and the information gained from the report of surveys made under said contract, No. 79, has proved its wisdom.

The townships subdivided during the fiscal year are those along, and south of, the Musselshell River, between ranges Nos. 12 and 20 east; in the valley of the Blackfoot River; some timber lands near the town of Helena; and fractional townships in the big bend of the Yellowstone River, north of the Crow Indian Agency, comprising a total area of 624,713.36 acres.

The total amount paid for surveys during the fiscal year, including the standard lines embraced in contract No. 79, the expense of running which should properly be considered as pertaining to future surveys of townships, was \$17,403.53; the expense of inspecting surveys, \$997.21; and office expenses, including salaries, \$6,950.68; thus making the cost of field work 2.8 cents per acre; inspecting same, one tenth of a cent per acre; office work on same 1.1 cents per acre; and the total expense to the government, 4 cents per acre. In this connection it should also be stated that a large part of the surveyor general's time is occupied in work arising from mineral surveys, and, therefore, only a portion of his salary should be considered as pertaining to the expense of agricultural surveys.

The act of Congress making the appropriation, approved June 20, 1878, specifies the following classes of lands as surveyable, viz:

First. Those adapted to agriculture without irrigation.

Second. Irrigable lands, or such as can be redeemed, and for which there is sufficient accessible water for the reclamation and cultivation of the same, not otherwise claimed.

Third. Timber lands bearing timber of commercial value, either foreign or domestic.

Fourth. Coal lands containing coal of commercial value.

Fifth. Exterior boundaries of town sites.

Sixth. Private land claims.

The special instructions issued under this law require the surveyor general, in the selection of lands under the third clause, to confine his field operations to non-mineral timber lands; direct him *not* to contract "for the survey of lands which subserve merely pastoral interests;" and inform him that if he should let contracts for the survey of lands not authorized by the appropriation act he will be held to strict account for so doing, and therefore instruct him to be vigilant in the selection of the lands to be surveyed, taking only those which are known to him to be of the classes specified, either of his own knowledge or from that derived from actual settlers applying to him for the extension of public lines over their settlements.

Except through information acquired by inspection of surveys in the field, to which I refer hereafter in this report, it is manifestly impossible for the surveyor general to have a personal knowledge of the character of lands in his district, and information derived from the application of actual settlers is, to some extent, unreliable, for the reason that they are not aware of the above restrictions, and when a contract is let for the subdivision of a township containing such settlements, it is often the case that the deputy surveyor, upon reaching the ground, will find that only a portion of it is surveyable.

The surveyor general therefore selects the locus of a contract according to his best information and judgment, and in the special instructions accompanying the contract, which are made a part of same and always approved by the Commissioner of the General Land Office before the surveys are commenced, makes the deputy surveyor the judge of the character of the land. Said special instructions in this surveying district are as follows:

"In the execution of work under your contract, you will be guided by the above classification of surveyable lands, and not include in your surveys any land that cannot be classed as surveyable under the six heads heretofore mentioned, excluding all barren wastes, bad lands, &c., unfit for classification in the above category. Lands which merely subserve pastoral interests are not of the character authorized by law to be subdivided.

"As confidence is placed in your judgment, it is expected that you will not violate the same by any act contrary to law and instructions. In this you will be held strictly accountable, and unless your work under the present contract is executed in strict accordance with the terms of your contract and the laws and instructions governing you in your work in the field, payment therefor will not be made, and you will be debarred from any future contracts. In case any townships or portions of townships embraced in your contract are unsurveyable, you are authorized to substitute in lieu of same, other townships which are surveyable, preference being given to those upon which settlement has been made, or toward which settlement is tending."

I am unable to see what other course the surveyor general can pursue under his instructions; yet, in my judgment, it is wrong, and the deputy surveyor should not be made the judge, for two reasons:

First. He is employed to do specific work, and he should no more be the judge of its value than a contractor on a railroad should be the judge of the engineering skill with which the work has been laid out.

Second. It is opposed to his interests. In this surveying district the deputy employs

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" " " " A3UA A3UA A3UA A

assistants at a certain rate per month, giving them transportation to and from the locus of the contract, rations for the entire period, and wages from the time the work is commenced until it is completed. Now, suppose that when he arrives on the ground instead of five or six townships adjoining and easy to work, he finds only one or two that can properly be classed as surveyable. When the survey of these is completed, he must spend days in finding other townships to substitute, during which time his men are lying idle, but drawing pay. The temptation is great to proceed with the subdivision of townships included in his contract, irrespective of the character of the land, especially when, as has been the case for the last two years, the appropriation for surveys is made so late that the deputy cannot get into the field until long after the fiscal year commences, has to work in the late fall and winter, until the snow drives him in, and go out again to finish the work in the spring, when the weather is, if possible, worse.

The instructions require the survey of timber land to be confined to that which is non-mineral in character and "where depredations have been practiced or are liable to be carried on by unlawful parties." This, in my judgment, is an unwise restriction, for the reason that timber on mineral lands is that first used for mining and milling purposes. It is true that by the act of Congress approved June 3, 1878, citizens and *bona fide* residents are authorized to fell and remove such timber, yet, if surveyed, such lands would be entered and purchased by owners of mills and mines, for the purpose of securing the timber thereon for their exclusive use. In this way mineral timber lands which now yield nothing to the government except the amount paid for the areas of mining claims would be a source of revenue.

The instructions forbid the survey of pastoral land. In this country it is almost always associated with agricultural land, on which are raised hay, oats, and vegetables, and it is with the greatest difficulty that an experienced man can tell what land is worthless, and what cannot be cultivated. The most worthless ground in this country can and does support sheep and cattle, with a little irrigation from the mountain streams, and it is only a question of a few years, if the necessary legislation can be had, when large tracts of land will be taken up for stock ranges. Anywhere on the table lands can be found swales covered with fine grass, and plenty of good land. The introduction of sheep culture into this country has completely revolutionized the ideas of the inhabitants as to land, and a great number of farms have been taken up as hay ranches, many of them on ground left unsurveyed as worthless.

Walter W. de Lacy, United States deputy surveyor, a gentleman of thorough scientific acquirements and long practical experience as a civil engineer and land surveyor, writes me relative to this subject, as follows:

"In 1863, I was one of the first to enter the Stinking Water Valley, on my way to the far famed Alder Gulch. I thought then that I had never seen a more desolate or worthless looking valley. It was covered with sage brush. Within two years this sage-brush land proved to be excellent farming land, and to-day the valley contains many thriving farms, well cultivated, has at least two towns and a large number of herds of cattle, horses, and sheep, besides mines on every side of it.

"I have seen the same thing in other places in this Territory, in California, in Idaho, and in Washington Territory. My experience has been a very varied one, yet withal I might survey land and declare that it was agricultural; it might be inspected by some one who had no experience in this country and rejected as such, and I might lose my time, my money, and my employment.

"The true way, in my opinion, would be to survey the whole country into townships, subdividing such as are found to contain valuable land. Let the township lines be run first. The surveyor, in returning surveys of exterior lines, should furnish notes of the different parts, as far as he has the opportunity to see them. The descriptions should be as minute as possible, showing the character of the land embraced in the township. This would, in the first place, give a very good topographical idea of the whole country, and would also designate effectively the agricultural, pastoral, mineral, and timber lands. The department and the surveyor general could then act understandingly in giving contracts and describing the country.

"As for the surveyors to whom contracts are awarded, they should have a rigid examination in mathematics, use of instruments, calculation of areas and draughting, the method of making public land surveys, with regulations governing the same, and have had some previous experience. The only exceptions should be old and reliable surveyors who have already been long in service and proved their capability.

"There have been many bad surveys made throughout the western country, but this is not wonderful. Many of the surveyors were men who were not educated to the business, who cared for nothing but making money; there were no inspections, no accountability, and no punishment for wrong doing. With a different system the public surveys can be made a credit to the country."

I thoroughly indorse the views of Deputy Surveyor De Lacy, as set forth in above letter, which was written at my request, and would add that, in my judgment, the prices allowed for field work are entirely too low to afford a fair compensation to the

G. Showing the condition of the appropriation for the salary of the surveyor general for Montana during the fiscal year ending June 30, 1878.

H. Showing the condition of the appropriation for the clerks in the office of the surveyor general for Montana, for the fiscal year ending June 30, 1878.

I. Showing the condition of the appropriation for incidental expenses for the office of the surveyor general for Montana, for the fiscal year ending June 30, 1878.

J. Showing the condition of the account of special deposits for office work on mining claims in the office of the surveyor general for Montana during the fiscal year ending June 30, 1878.

K. Showing the number of plats made in the office of the surveyor general for Montana, during the fiscal year ending June 30, 1878.

L. Showing the number of acres of public land surveyed in Montana Territory from the inception of surveys to the close of the fiscal year ending June 30, 1878.

M. Showing the number of linear miles run, the rate per mile, and the total cost of surveys, in the Territory of Montana, during the fiscal year ending June 30, 1878.

N. Giving names, nativity, &c., of the surveyor general and the employés in his office at Helena, Montana, during the fiscal year ending June 30, 1878.

O. Showing the number of letters recorded in the office of the surveyor general for Montana, during the fiscal year ending June 30, 1878.

P. Showing the work performed in the office of the surveyor general for Montana, during the fiscal year ending June 30, 1878.

Q. Estimates for surveying services and office expenses in the district of Montana, for the fiscal year ending June 30, 1880.

ESTIMATES.

My estimate for field work is based upon what I regard the actual necessities of this district, and the prices named are those established by law, with the exception of meander lines, which I have estimated at \$10 per mile, same as standard. The work of running, measuring, and marking meander lines, and the office work of the deputy-surveyor on same, is far more difficult than standard lines. As it will be necessary to do a large amount of meandering in this district, in the near future, I trust that Congress, in justice to the deputy surveyors, will increase the rate from \$6 per mile to that named above.

My estimate for my own salary is based upon that paid my predecessors up to July 1, 1877, and in view of the work and responsibility required, and the cost of living in this Territory, it is, in my judgment, as small an amount as should be paid for the services rendered. The same remark will apply to the salaries of the clerks.

The estimate for incidental expenses is the same as allowed during the present fiscal year, and it is only by the exercise of strict economy that it will cover the actual necessary expenses of the office.

The estimate for binding and preserving the original records of surveys has been so often made and indorsed by the Commissioner and, as often, stricken out of the appropriation, that it seems almost useless to ask for it again, yet I deem it my duty to once more call attention to its necessity.

AGRICULTURE.

The land under cultivation in this Territory comprises only a very small portion of that capable of being so used, and this important branch of industry can scarcely be said to have kept pace with the wants of the people. This is not a strange state of affairs in so new a country, originally supposed to be valuable only for its minerals. Within the past year or two there has been a marked increase in the amount of agricultural products, and this will doubtless continue until the supply equals the demand.

The climate of Montana has undergone a marked change during the past four years, the rain-fall increasing from year to year, and many lands supposed to be utterly worthless for agricultural purposes are now bearing fine crops of hay, grain, vegetables, &c.

PLACER MINES.

Although the days for making large fortunes in placer mining have probably gone by, it is still an important source of wealth and, owing to the increased rain-fall, more ground is now being worked than for several years previous.

There is a vast amount of placer-mining ground in this Territory which would pay from \$1.50 to \$2 per man per diem, and, with an increase of population and reduction in the cost of living, this will undoubtedly all be worked.

New and rich mines are said to have been discovered in the Bear Paw Mountains, but, as yet, sufficient work has not been done to prove their permanence or value.

GOLD LODES.

There has also been a marked increase in the amount of gold ore worked in the Territory. The exceedingly rich body of ore struck in the Penobscot mine, situated in township 11 north, range 6 west, has caused great excitement, not only in Montana,

but also throughout the East and on the Pacific slope, among those interested in mining. An official report from the mining superintendent states that the value of the product from January 1, 1878, to May 25, 1878, was \$80,797.62, the total number of tons of ore milled being 685. Included in this product was one bar of gold, the largest ever produced in this country, valued at \$54,235.62. The milling facilities are very imperfect, but the owners are now engaged in erecting a 15-stamp mill, and it is their belief that, when completed, it will be able to earn \$50,000 per month, working ores from the Penobscot and Snow Drift mines. This rich strike has diverted the public attention from other gold lodes of former prominence, which, however, so far as heard from, are all being steadily worked, with an increased product over that of former years.

SILVER LODES.

It is impossible, within the necessary limits of this report, to note in detail, or even make reference to, the producing silver lodes in this Territory. After passing through the usual phases of undue inflation, followed by unwise investments and extravagant management, producing great depression, silver mining may now be considered as one of the steady industries, resting upon a permanent basis.

The operations at Butte, the present great center of silver-mining and milling were interrupted for some weeks by labor troubles, now, apparently, happily adjusted. In Philipsburg, Vipond, Trapper, Boulder, Jefferson, and other prominent mining districts, work has continued without interruption.

During the past fiscal year the facilities for reducing ore have been largely increased throughout the Territory, and many mines, formerly mere prospect holes, are now being skillfully developed in such a manner as to prove their permanence and value.

COPPER AND LEAD.

Many valuable copper mines are known to exist in Montana; some have been partially worked, and shipments of ore are made. The cost of transportation and the fact that there are no facilities here for reducing such ore have prevented any extensive development of these lodes. The same causes, in connection with the low price of lead, have, in a lesser degree, retarded the mining of galena ores, except where they carry a large percentage of silver. It is only a question of time when these obstacles will be overcome, and the product of copper and lead will then be a very important item in the mineral wealth of this Territory.

COAL AND IRON.

Large bodies of coal of good quality have been discovered in various parts of Montana and several mines are being worked in a small way.

Iron ore has also been found and will some day prove valuable, although at present no inducements exist for working it.

SHIPMENTS OF GOLD AND SILVER.

The value of the gold and silver shipped from this Territory during the past fiscal year is as follows:

By Wells, Fargo & Co.'s express, gold	\$2, 060, 511	
By Wells, Fargo & Co.'s express, silver	1, 119, 635	
		\$3, 180, 146
By private conveyance, estimated		500, 000
Ores and base bullion, estimated		800, 000
Total value of shipments		4, 480, 146

During the same period the United States assay office at Helena, Mont., handled:

Gold	\$331, 460 51
Silver	385, 277 90
Total	716, 738 41

STOCK.

The number and value of the stock assessed in Montana during the Territorial fiscal year ending December 31, 1877, is as follows:

	Number.	Value.
Horses and mules	34, 984	\$1, 164, 757
Cattle	182, 659	2, 027, 037
Sheep	79, 288	234, 864
Hogs	5, 144	29, 390

The return from Custer County gives only the value of the stock, omitting the number, and it is safe to say that the above figures are an underestimate of the number and value of the stock at the time the assessment was made, in the summer and fall of 1877.

Stock men are paying more attention to the improvement of the quality of their stock; the increase this year is much larger proportionately than that of previous years, and large numbers of stock of various kinds have been brought into the Territory since the above assessment was made. As her magnificent natural facilities become better known and utilized, Montana will take rank among the foremost stock countries in the world.

As previously stated in this report, the time will soon come when stock men will find it requisite to lease or buy large tracts of land for grazing purposes, and it is earnestly hoped that the necessary legislation on the part of Congress may be had at an early date.

POPULATION.

The population of Montana, for a long time transitory, and composed mainly of men, has assumed a permanent character, and during the past year many families have been added to its number.

The citizens are intelligent, enterprising, and industrious, fully alive to the advantages of education, cheerfully consenting to comparatively heavy taxes to promote its advancement, and, thus far, the evil of tramps is unknown.

More people are needed to develop the resources of the Territory, yet the labor market may be said to be fully stocked. As capital is invested in the various industrial enterprises, more labor will be required, but at present what Montana most needs is an influx of intelligent, industrious men and women, who will take up the public lands, and have means enough to support themselves for a year or two until agriculture or stock raising yields them a livelihood. To such Montana offers a home in a beautiful, healthy country, education for their children, and, in the near future, a competence as the result of their economy and industry.

CONCLUSION.

If I have dwelt at too great length in this report upon the matters relative to surveys, it is due to my earnest desire to see the surveying service made, in all respects, a credit to the country. The present system is in the main a very good one in theory, and it only needs a few changes, easily made, and the earnest efforts of the surveyors-general and the deputy surveyors to make it thoroughly so in practice.

The suggestions embodied in this report are respectfully submitted with the earnest hope that, in connection with those of others of longer standing and more experience in the service, they will receive careful consideration and have due weight in determining future legislation regarding this important branch of the public service.

Very respectfully, your obedient servant,

ROSWELL H. MASON,
United States Surveyor General for Montana.

Hon. J. A. WILLIAMSON,
Commissioner.

A.—Statement showing condition of appropriation for surveys of public land in the Territory of Montana during the fiscal year ending June 30, 1878.

DR.				CR.		
No. of contracts.	Date of accounts.	Contractors.	Amount.	Date.		Amount.
	1877.			1877.		
76	Nov. 28	De Lacy & Kellogg	\$3, 536 09	July 10	By appropriation, act of March 3, 1877	\$17, 700 00
76	Dec. 4	do	2, 211 15			
77	Dec. 20	Demas L. McFarland ...	1, 674 32			
	1878.					
79	June 19	do	610 35			
78	June 28	George F. Marsh	1, 129 54			
76	July 12	De Lacy & Kellogg	4, 218 35			
79	July 19	Demas L. McFarland ...	2, 639 89			
78	Aug. 1	George F. Marsh	1, 383 84			
		Balance	296 47			
			17, 700 00			17, 700 00

ROSWELL H. MASON,
United States Surveyor General for Montana.

B.—Statement of special deposits for office work on mining claims in Montana for the fiscal year ending June 30, 1878.

Name of deputy.	Date of appointment.	Name of depositor.	No. of survey.	Amount of deposit.*	No. of certificate of deposit.	Date of certificate of deposit.	No. of lot.	Location of survey.	
								Township.	Range.
Benjamin F. Marsh	Aug. 6, 1872	Vestel & Sears	509	\$30	83	July 9, 1877	37 A and B	11 north	6 west.
Do.	Aug. 6, 1872	do	510	25	84	July 9, 1877	38	11 north	6 west.
Do.	Aug. 6, 1872	do	511	25	85	July 9, 1877	39	11 north	6 west.
Germaine A. Kellogg	Nov. 24, 1876	R. B. Loomis et al.	512	25	86	July 11, 1877	38	10 north	1 east.
Demas L. McFarland	June 22, 1874	James O. Donnell	513	25	87	July 11, 1877	37	6 north	6 west.
George B. Foote	Dec. 19, 1872	J. F. Wilson et al.	514	25	88	July 12, 1877	75	8 north	5 west.
James M. Page	July 15, 1874	E. G. Herendeen et al.	515	25	89	July 14, 1877	46	7 south	3 west.
Albert B. Knight	July 19, 1875	George M. Young	516	25	91	July 14, 1877	38	2 south	2 east.
Do.	July 19, 1875	Parker & Williams	517	25	90	July 14, 1877	49	6 south	3 west.
Preston Scott	July 25, 1874	John Stinson	518	25	92	July 16, 1877	40	3 north	8 west.
Benjamin F. Marsh	Aug. 6, 1872	Samuel Marshall et al.	519	25	93	July 16, 1877	41	10 north	1 west.
Do.	Aug. 6, 1872	do	520	25	94	July 16, 1877	42	10 north	1 west.
Demas L. McFarland	June 22, 1874	Richard S. Jones	521	25	95	July 18, 1877	39	3 north	7 west.
James M. Page	July 15, 1874	William Peck et al.	522	25	96	Aug. 1, 1877	51	3 south	11 west.
Benjamin F. Marsh	Aug. 6, 1872	Daniel W. Corbin	523	25	97	Aug. 1, 1877	41	9 north	5 west.
James M. Page	July 15, 1874	D. McCranor et al.	524	25	98	Aug. 6, 1877	41	1 south	11 west.
Do.	July 15, 1874	do	525	25	98	Aug. 6, 1877	42	1 south	11 west.
Albert B. Knight	July 19, 1875	Hecla Mining Company	526	25	99	Aug. 16, 1877	37	2 south	10 west.
Benjamin F. Marsh	Aug. 6, 1872	John Murphy	449	30	100	Aug. 22, 1877	44 A and B	13 north	8 west.
Albert B. Knight	July 19, 1875	James Boyd et al.	527	25	101	Aug. 24, 1877	38	5 south	4 west.
James M. Page	July 15, 1874	S. B. Rice	528	25	102	Aug. 31, 1877	37	1 south	6 west.
Do.	July 15, 1874	P. A. Largey	529	25	103	Aug. 31, 1877	46	2 south	6 west.
Benjamin F. Marsh	Aug. 6, 1872	Louis Rotwitt et al.	530	25	104	Sept. 7, 1877	45	11 north	1 and 2 west.
Do.	Aug. 6, 1872	John Nanno et al.	531	25	105	Sept. 7, 1877	37	9 north	2 east.
Albert B. Knight	July 19, 1875	Alex. McKay et al.	532	30	106	Sept. 15, 1877	A & B 37, 38, 39	4 and 5 south	3 and 4 west.
Do.	July 19, 1875	S. B. Rice	533	25	107	Sept. 15, 1877	39	3 south	1 west.
Do.	July 19, 1875	H. D. Rossiter	534	25	108	Sept. 15, 1877	47	7 south	3 west.
Do.	July 19, 1875	Hecla Consolidated Mining Company	535	25	109	Sept. 18, 1877	52	3 south	11 west.
Benjamin F. Marsh	Aug. 6, 1872	J. H. Russell	536	25	110	Sept. 24, 1877	77	8 north	5 west.
George B. Foote	Dec. 19, 1872	John Gonn	537	25	111	Sept. 24, 1877	76	8 north	5 west.
Benjamin F. Marsh	Aug. 6, 1872	John Caplice	538	25	112	Oct. 1, 1877	42	9 north	5 west.
Preston Scott	July 25, 1874	John Noyes	539	25	113	Oct. 1, 1877	41	3 north	8 west.
Benjamin F. Marsh	Aug. 6, 1872	Louis Gosselin	540	25	114	Oct. 18, 1877	48	12 north	8 west.
Do.	Aug. 6, 1872	T. Harrington et al.	541	30	115	Oct. 18, 1877	44 and 40	12 and 13 north	9 west.
George B. Foote	Dec. 19, 1872	Dingee & Perry	542	25	116	Oct. 19, 1877	78	8 north	5 west.
Do.	Dec. 19, 1872	do	543	25	117	Oct. 19, 1877	79	8 north	5 west.

James M. Page.....	July 15, 1874	P. A. Largey.....	544	25	118	Oct.	19, 1877	47	2 south.....	6 west.
Benjamin F. Marsh.....	Aug. 6, 1872	T. J. Harrington <i>et al.</i>	545	20	119	Oct.	25, 1877	41	13 north.....	9 west.
Preston Scott.....	July 25, 1874	Charles S. Warren <i>et al.</i>	546	25	120	Oct.	26, 1877	43	3 north.....	8 west.
Benjamin F. Marsh.....	Aug. 6, 1872	Jos. D. Conrad <i>et al.</i>	547	25	121	Nov.	7, 1877	43 and 47	10 and 11 north.....	1 west.
Do.....	Aug. 6, 1872	Cooney & Monaghan ¹	548	25	122	Nov.	7, 1877	46	11 north.....	1 west.
Demas L. McFarland.....	June 22, 1874	Hope Mining Company.....	549	25	123	Nov.	21, 1877	56	7 north.....	13 west.
Do.....	June 22, 1874	do.....	550	25	124	Nov.	21, 1877	57	7 north.....	13 west.
Albert B. Knight.....	July 19, 1875	Lavoisier C. Moreland.....	551	25	125	Dec.	3, 1877	39	2 south.....	3 west.
Demas L. McFarland.....	June 22, 1874	Andrew J. Davis.....	552	25	126	Dec.	3, 1877	44	3 north.....	8 west.
Do.....	June 22, 1874	do.....	553	25	127	Dec.	3, 1877	58	3 north.....	8 west.
Do.....	June 22, 1874	do.....	554	25	128	Dec.	3, 1877	59	3 north.....	8 west.
Do.....	June 22, 1874	do.....	555	25	129	Dec.	4, 1877	60	3 north.....	8 west.
Benjamin F. Marsh.....	Aug. 6, 1872	W. A. Clark.....	556	25	130	Dec.	15, 1877	54	7 north.....	4 west.
Do.....	Aug. 6, 1872	Davis C. Turner.....	557	25	131	Dec.	15, 1877	55	7 north.....	4 west.
James M. Page.....	July 15, 1874	Franklin Farrell <i>et al.</i>	558	25	132	Dec.	18, 1877	41	6 north.....	4 west.
Do.....	July 15, 1874	P. A. Largey.....	559	25	133	Dec.	21, 1877	42	6 north.....	4 west.
Do.....	July 15, 1874	do.....	560	25	134	Dec.	21, 1877	56	7 north.....	4 west.
Demas L. McFarland.....	June 22, 1874	Marcus Daly <i>et al.</i>	561	25	135	Dec.	24, 1877	61	3 north.....	8 west.
Albert B. Knight.....	July 19, 1875	Charles Leyendecker <i>et al.</i>	562	25	137	Dec.	28, 1877	37	9 south.....	3 west.
Benjamin F. Marsh.....	Aug. 6, 1872	James McCabe <i>et al.</i>	563	25	136	Dec.	27, 1877	51	10 north.....	2 east.
James M. Page.....	July 15, 1874	Charles L. Dahler <i>et al.</i>	564	35	138	Jan.	2, 1878	48	2 south.....	6 west.
Demas L. McFarland.....	June 22, 1874	Andrew J. Davis.....	566	25	139	Jan.	7, 1878	62	3 north.....	8 west.
Do.....	June 22, 1874	do.....	567	25	140	Jan.	7, 1878	63	3 north.....	8 west.
Walter W. De Lacy.....	Apr. 25, 1873	G. A. Kellogg <i>et al.</i>	568	25	141	Jan.	8, 1878	39	10 north.....	9 east.
Do.....	Apr. 25, 1873	do.....	569	25	142	Jan.	8, 1878	40	10 north.....	9 east.
Do.....	Apr. 25, 1873	do.....	570	25	143	Jan.	8, 1878	41	10 north.....	9 east.
Do.....	Apr. 25, 1873	do.....	571	25	144	Jan.	8, 1878	42	10 north.....	9 east.
Do.....	Apr. 25, 1873	do.....	572	25	145	Jan.	8, 1878	43	10 north.....	9 east.
Demas L. McFarland.....	June 22, 1874	R. W. Donnell <i>et al.</i>	573	25	146	Jan.	14, 1878	64	3 north.....	8 west.
Do.....	June 22, 1874	H. C. Weibbold.....	574	25	147	Jan.	25, 1878	65	3 north.....	8 west.
Do.....	June 22, 1874	Richard S. Jones <i>et al.</i>	575	25	148	Jan.	31, 1878	66	3 north.....	8 west.
Do.....	June 22, 1874	James A. Talbott <i>et al.</i>	576	25	149	Jan.	31, 1878	67	3 north.....	8 west.
Do.....	June 22, 1874	do.....	577	25	150	Jan.	31, 1878	68	3 north.....	8 west.
Do.....	June 22, 1874	do.....	578	25	151	Jan.	31, 1878	69	3 north.....	8 west.
Do.....	June 22, 1874	John Noyes <i>et al.</i>	579	25	152	Jan.	31, 1878	70	3 north.....	8 west.
Do.....	June 22, 1874	Dennis Leary.....	580	25	153	Jan.	31, 1878	46 and 71	3 north.....	7 and 8 west.
Do.....	June 22, 1874	National Mining and Exploring Company.....	581	25	154	Jan.	31, 1878	72	3 north.....	8 west.
Do.....	June 22, 1874	George W. Rea <i>et al.</i>	582	25	155	Feb.	2, 1878	37 and 40	1 and 2 north.....	7 west.
Do.....	June 22, 1874	do.....	583	25	156	Feb.	2, 1878	38	2 north.....	7 west.
James M. Page.....	July 15, 1874	John D. Thomas <i>et al.</i>	491	10	157	Feb.	14, 1878	43	2 south.....	6 west.
Demas L. McFarland.....	June 22, 1874	William Wilson <i>et al.</i>	584	25	158	Feb.	16, 1878	37 and 73	3 and 4 north.....	8 west.
George F. Marsh.....	Oct. 25, 1877	Charles Pryse.....	585	25	159	Feb.	19, 1878	47	13 north.....	8 west.
Demas L. McFarland.....	June 22, 1874	Joel W. Ransom <i>et al.</i>	586	25	160	Feb.	20, 1878	42	3 north.....	7 west.
Do.....	June 22, 1874	William A. Clark <i>et al.</i>	587	25	161	Feb.	21, 1878	74	3 north.....	8 west.
Do.....	June 22, 1874	Jos. K. Clark.....	588	25	162	Feb.	21, 1878	75	3 north.....	8 west.
Do.....	June 22, 1874	do.....	589	25	163	Feb.	21, 1878	76	3 north.....	8 west.
Do.....	June 22, 1874	do.....	590	25	164	Feb.	21, 1878	77	3 north.....	8 west.
Benjamin F. Marsh.....	Aug. 6, 1872	Alex. T. Williams.....	591	10	165	Feb.	21, 1878	43 A and B	7 north.....	4 west.
Demas L. McFarland.....	June 22, 1874	W. E. Smith <i>et al.</i>	592	25	166	Feb.	23, 1878	78	3 north.....	8 west.
Do.....	June 22, 1874	John Downs <i>et al.</i>	593	25	167	Feb.	23, 1878	79	3 north.....	8 west.

* Deposited in First National Bank of Helena, Mont.

B.—Statement of special deposits for office work on mining claims in Montana for the fiscal year ending June 30, 1878—Continued.

Name of deputy.	Date of appointment.	Name of depositor.	No. of survey.	Amount of deposit.*	No. of certificate of deposit.	Date of certificate of deposit.	No. of lot.	Location of survey.	
								Township.	Range.
Demas L. McFarland ..	June 22, 1874	John Downes et al.....	594	\$25	168	Feb. 23, 1878	80	3 north.....	8 west,
Do.....	June 22, 1874	A. W. Barnard et al.....	595	25	169	Feb. 23, 1878	81	3 north.....	8 west.
Do.....	June 22, 1874	William A. Clark et al.....	596	25	170	Feb. 25, 1878	53	3 north.....	7 west.
Albert B. Knight	July 19, 1875	Alex. McKay et al.....	597	25	171	Feb. 26, 1878	39	5 south.....	3 west.
Demas L. McFarland ..	June 22, 1874	Samuel B. Thompson.....	598	25	172	Feb. 26, 1878	83	3 north.....	8 west.
Do.....	June 22, 1874	J. F. Potting.....	599	25	173	Feb. 26, 1878	47	3 north.....	7 west.
Do.....	June 22, 1874	A. W. Barnard et al.....	600	25	174	Feb. 26, 1878	48 and 84	3 north.....	7 and 8 west.
Albert B. Knight	July 19, 1875	Joel W. Ransom et al.....	601	25	175	Mar. 1, 1878	51 and 87	3 north.....	7 and 8 west.
Do.....	July 19, 1875	do.....	602	25	176	Mar. 1, 1878	85	3 north.....	8 west.
Do.....	July 19, 1875	Joel W. Ransom.....	603	25	177	Mar. 1, 1878	52	3 north.....	7 west.
George F. Marsh.....	Oct. 25, 1877	Thomas Cruse.....	604	25	178	Mar. 9, 1878	40	11 north.....	6 west.
Albert B. Knight	July 19, 1875	Rolla Butcher et al.....	605	25	179	Mar. 11, 1878	82	3 north.....	8 west.
Thomas T. Baker	Dec. 15, 1877	Hugh B. McCleery et al.....	606	25	180	Mar. 11, 1878	44	3 north.....	10 west.
Benjamin F. Marsh.....	Aug. 6, 1872	John Caplice et al.....	607	25	181	Mar. 14, 1878	45	9 north.....	5 west.
Albert B. Knight	July 19, 1875	Granville Stuart.....	608	25	182	Mar. 14, 1878	86	3 north.....	8 west.
George B. Foote	Dec. 19, 1872	J. E. Totten et al.....	609	25	183	Mar. 14, 1878	48 and 43	10 north.....	4 and 5 west.
Albert B. Knight	July 19, 1875	A. J. Rundell.....	610	25	198	Apr. 13, 1878	55 and 96	3 north.....	7 and 8 west.
James M. Page	July 15, 1874	Charles L. Dahler.....	611	25	184	Mar. 19, 1878	49	2 south.....	6 west.
Do.....	July 15, 1874	Patrick A. Largey.....	612	25	185	Mar. 19, 1878	38 and 50	1 and 2 south	6 west.
Albert B. Knight	July 19, 1875	David N. Upton et al.....	613	25	186	Mar. 21, 1878	88	3 north.....	8 west.
Do.....	July 19, 1875	Andrew J. Davis.....	614	25	187	Mar. 21, 1878	89	3 north.....	8 west.
Do.....	July 19, 1875	do.....	615	25	188	Mar. 21, 1878	90	3 north.....	8 west.
George F. Marsh.....	Oct. 25, 1877	Marcus Daly et al.....	616	25	189	Mar. 22, 1878	91	3 north.....	8 west.
Do.....	Oct. 25, 1877	N. S. Vestel.....	617	25	190	Mar. 26, 1878	41	11 north.....	6 west.
Do.....	Oct. 25, 1877	N. S. Vestel et al.....	618	25	191	Mar. 26, 1878	42	11 north.....	6 west.
Albert B. Knight	July 19, 1875	National Mining and Exploring Company.....	619	25	192	Mar. 29, 1878	92	3 north.....	8 west.
George B. Foote	Dec. 19, 1872	George W. Reed et al.....	620	5	193	Apr. 1, 1878	81	9 north.....	4 west.
Thomas T. Baker	Dec. 15, 1877	Rolla Butcher.....	621	25	194	Apr. 2, 1878	93	3 north.....	8 west.
Albert B. Knight	July 19, 1875	William A. Clark et al.....	622	25	195	Apr. 6, 1878	94	3 north.....	8 west.
Do.....	July 19, 1875	do.....	623	25	196	Apr. 6, 1878	95	3 north.....	8 west.
James M. Page	July 15, 1874	Patrick A. Largey.....	624	25	197	Apr. 8, 1878	51	2 south.....	6 west.
George B. Foote	Dec. 19, 1872	F. V. Schener.....	625	25	199	Apr. 15, 1878	82	9 north.....	4 west.
Albert B. Knight	July 19, 1875	Patrick A. Largey.....	626	25	200	Apr. 17, 1878	97	3 north.....	8 west.
Do.....	July 19, 1875	Jos. K. Clark et al.....	627	25	201	Apr. 27, 1878	98	3 north.....	8 west.

Benjamin F. Marsh.....	Aug. 6, 1872	William Bell True <i>et al.</i>	628	25	202	May 13, 1878	43 A and B	11 north.....	6 west.
Do.....	Aug. 6, 1872	do.....	628	5	203	May 14, 1878	43 A and B	11 north.....	6 west.
Do.....	Aug. 6, 1872	William Bell True and Nathan S. Vestel	629	25	204	May 22, 1878	44 A and B	11 north.....	6 west.
Do.....	Aug. 6, 1872	do.....	629	5	206	May 24, 1878	44 A and B	11 north.....	6 west.
Do.....	Aug. 6, 1872	Nathan S. Vestel.....	630	25	205	May 22, 1878	45	11 north.....	6 west.
Do.....	Aug. 6, 1872	William Mayger <i>et al.</i>	631	25	207	May 31, 1878	46 and 38	11 and 12 north	5 and 6 west.
James M. Page.....	July 15, 1874	Lewis Fullhart <i>et al.</i>	632	25	208	June 12, 1878	52	2 south.....	6 west.
Albert B. Knight.....	July 19, 1875	Monroe Silver Mining Company.....	633	30	209	June 19, 1878	37 A and B	2 south.....	11 west.
Do.....	July 19, 1875	do.....	633	20	210	June 25, 1878	37 A and B	2 south.....	11 west.
Total amount deposited.....			.....	3, 150					

* Deposited in First National Bank of Helena, Montana.

ROSWELL H. MASON,
United States Surveyor General for Montana.

C.—List of public lands surveyed in Montana Territory during the fiscal year ending June 30, 1878.

Number of townships surveyed.	Township.	Range.	Public lands surveyed, agricultural.	Public lands surveyed, mineral.	Unsurveyed mountain lands.	Unsurveyed Indian reservation.	Total number of acres.
			<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>
1	5 north.....	15 east.....	23,030.09				23,030.09
2	5 north.....	14 east.....	23,032.08				23,032.08
3	5 north.....	13 east.....	16,719.44		6,318.52		23,037.96
4	6 north.....	15 east.....	25,685.80				25,685.80
5	6 north.....	14 east.....	25,606.59				25,606.59
6	6 north.....	13 east.....	25,437.67				25,437.67
7	4 north.....	16 east.....	22,951.28				22,951.28
8	5 north.....	16 east.....	18,131.41		4,885.00		23,016.41
9	4 north.....	17 east.....	22,832.62				22,832.62
10	5 north.....	17 east.....	23,030.23				23,030.23
11	4 north.....	18 east.....	22,963.80				22,963.80
12	5 north.....	18 east.....	23,046.31				23,046.31
13	14 north.....	9 west.....	8,160.00	7,605.75	7,182.09		22,947.84
14	14 north.....	8 west.....	7,790.40	10,355.41	4,801.98		22,947.79
15	14 north.....	7 west.....	2,018.79		20,963.61		22,982.40
16	15 north.....	7 west.....	8,918.32		14,029.52		22,947.84
17	5 north.....	19 east.....	23,042.71				23,042.71
18	4 north.....	19 east.....	23,061.91				23,061.91
19	4 north.....	20 east.....	23,061.91				23,061.91
20	5 north.....	20 east.....	23,005.24				23,005.24
21	6 north.....	20 east.....	25,232.07				25,232.07
22	6 north.....	19 east.....	25,269.00				25,269.00
23	6 north.....	18 east.....	25,231.72				25,231.72
24	6 north.....	17 east.....	25,238.83				25,238.83
25	6 north.....	16 east.....	25,238.58				25,238.58
26	6 north.....	5 west.....		22,388.35			22,388.35
27	7 north.....	4 west.....		8,580.54			8,580.54
28	8 north.....	4 west.....		24,138.45			24,138.45
29	7 north.....	5 west.....		14,299.48	8,541.80		22,841.28
30	8 north.....	5 west.....		7,360.00	16,849.94		24,209.94
31	3 south.....	21 east.....	4,291.84			18,748.16	23,040.00
32	3 south.....	22 east.....	1,837.74			21,202.26	23,040.00
33	2 south.....	22 east.....	6,119.00			16,921.00	23,040.00
			529,985.38	94,727.98	83,572.46	56,871.42	765,155.74
			94,727.98				
Total number of acres surveyed ...			624,713.36				

ROSWELL H. MASON,
United States Surveyor General for Montana.

PUBLIC LANDS.

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Contract.		Character and location of work.	Names of deputies.	Remarks.
No.	Date.			
76	1877. July 17	The extension of the first standard parallel north, through ranges 13 east and 16, 17, 18, 19, and 20 east; the Judith guide meridian between ranges 15 and 16 east, through townships 5 and 6 north; the exterior and subdivision lines of townships 5 and 6 north, ranges 14, 15, 16, 17, 18, 19, and 20 east; the exterior and subdivision lines of fractional townships 5 and 6 north, range 13 east; the exterior and subdivision lines of townships 4 north, ranges 16, 17, 18, 19, and 20 east, and township 3 north, range 16 east. Estimated amount of contract being \$10,000.	Walter W. de Lacy and Germaine A. Kellogg.	Township 3 north, range 16 east, was not run; township 6 north, range 13 east, was run in full; township 5 north, range 16 east, is fractional. Completed and returned. Amount, \$9,965.59.
77	July 21	A guide meridian through townships 12, 13, 14, and 15 north, between ranges 8 and 9 west; the exterior and subdivision lines of townships 14 north, ranges 7, 8, 9, 14, 15, 16, and 17 west; and townships 15 north, ranges 7, 8, 9, 14, 15, 16, and 17 west. Estimated amount of contract being \$5,000.	Demas L. McFarland.	The guide meridian through township 15 north, the exterior and subdivision lines of townships 14 north, ranges 14, 15, 16, and 17 west, and townships 15 north, ranges 8, 9, 14, 15, 16, and 17 west, were not run; townships 14 north, ranges 7, 8, and 9 west, and township 15 north, range 7 west, are all fractional. Amount, \$1,674.32. Balance of contract canceled January 5, 1878.
78	Aug. 8	The exterior boundaries of townships 5, 6, and 7 north, range 5 west, and township 8 north, range 4 west; the subdivision lines of townships 6 and 7 north, range 5 west, and township 8 north, range 4 west, and the unsurveyed exterior and subdivision lines of township 7 north, range 4 west. Estimated amount of contract being \$2,700. All of the lines under contract being on timber lands.	George F. Marsh.	The north boundary only of township 5 north, range 5 west, was run; township 7 north, range 5 west, is fractional; fractional township 8 north, range 5 west, was substituted under special instructions. Completed and returned. Amount, \$2,513.38.
79	1878. Mar. 5	The base line from the established standard corner to sections 33 and 34, township 1 north, range 16 east, through ranges 16, 17, 18, 19, 20, 21, 22, 23, 24, and 25 east; a guide meridian south from the base line through townships 1, 2, and 3 south, between ranges 20 and 21 east, to the Yellowstone River, and north from the base line through townships 1, 2, and 3 north, between ranges 20 and 21 east; the first standard parallel north from the corner to townships 4 and 5 north, through ranges 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, and 34 east; a guide meridian north from the first standard parallel north, through townships 5, 6, 7, and 8 north, between ranges 33 and 34 east; the second standard parallel north through ranges 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, and 45 east; the exterior lines of townships 1, 2, and 3 south, range 21 east, and the subdivision lines of townships 2 and 3 south, range 21 east. Estimated amount of contract being \$3,325.68.	Demas L. McFarland.	Townships 1 and 2 south, range 21 east, were not surveyed; the first standard parallel north was discontinued in range 33 east, at the point of its intersection with the Yellowstone River, and the guide meridian north through townships 5, 6, 7, and 8 north, was run between ranges 32 and 33 east; the second standard parallel north through a portion of range 32 east, ranges 33 and 46 east, and a portion of range 47 east, and fractional townships 2 and 3 south, range 22 east, were substituted under special instructions. Completed and returned. Amount, \$3,250.24.

NOTE.—Contract No. 75, dated June 2, 1877, with Benjamin F. Marsh, has been completed and returned during this fiscal year.

ROSSELL H. MASON,
United States Surveyor General for Montana.

E.—Statement showing the condition of appointments made for the survey of mineral claims in Montana, under acts of Congress, during the fiscal year ending June 30, 1878.

Number.	Date of appointment.	Name of deputy.	Extent of district.	Number of surveys made.	Remarks.
1	Aug. 6, 1872	Benjamin F. Marsh	Montana Territory	24	Appointment revoked Jan. 2, 1878.
2	Dec. 19, 1872	George B. Foote		7	
3	Apr. 25, 1873	Walter W. de Lacy		5	
4	May 9, 1873	Peter Koch		0	
5	Sept. 13, 1873	M. A. A. Meyendorff		0	
6	June 22, 1874	Demas L. McFarland		36	
7	July 15, 1874	James M. Page		15	
8	July 25, 1874	Preston Scott		3	
9	June 18, 1875	Benjamin H. Tatem		0	
10	July 19, 1875	Albert B. Knight		27	
11	Nov. 24, 1876	Germaine A. Kellogg		1	
12	Oct. 25, 1877	George F. Marsh		4	
13	Dec. 15, 1877	Thomas T. Baker		2	
Total.....				124	

ROSWELL H. MASON,
United States Surveyor General for Montana.

F.—Statement showing the description of land for which township plats and descriptive lists have been furnished the Helena and Bozeman land offices during the fiscal year ending June 30, 1878.

HELENA LAND OFFICE, HELENA, MONT.

Number.	Township.	Range.	Area, in acres.	When transmitted.	
				Duplicate plats.	Descriptive lists.
1	5 north	13 east	16, 719. 44	Nov. 28, 1877	Nov. 28, 1877.
2	5 north	14 east	23, 032. 08	Nov. 28, 1877	Nov. 28, 1877.
3	5 north	15 east	23, 030. 09	Nov. 28, 1877	Nov. 28, 1877.
4	6 north	13 east	25, 437. 67	Nov. 28, 1877	Nov. 28, 1877.
5	6 north	14 east	25, 606. 59	Nov. 28, 1877	Nov. 28, 1877.
6	6 north	15 east	25, 685. 80	Nov. 28, 1877	Nov. 28, 1877.
7	5 north	16 east	18, 131. 41	Dec. 4, 1877	Dec. 4, 1877.
8	5 north	17 east	23, 030. 23	Dec. 4, 1877	Dec. 4, 1877.
9	5 north	18 east	23, 046. 31	Dec. 4, 1877	Dec. 4, 1877.
10	14 north	7 west	2, 018. 79	Dec. 20, 1877	Dec. 20, 1877.
11	14 north	8 west	18, 145. 81	Dec. 20, 1877	Dec. 20, 1877.
12	14 north	9 west	15, 765. 75	Dec. 20, 1877	Dec. 20, 1877.
13	15 north	7 west	8, 918. 32	Dec. 20, 1877	Dec. 20, 1877.
14	7 north	4 west	8, 580. 54	June 28, 1878	June 28, 1878.
15	6 north	5 west	22, 388. 35	June 28, 1878	June 28, 1878.
16	5 north	19 east	23, 042. 71	July 12, 1878	July 12, 1878.
17	5 north	20 east	23, 005. 24	July 12, 1878	July 12, 1878.
18	6 north	16 east	25, 238. 58	July 12, 1878	July 12, 1878.
19	6 north	17 east	25, 238. 83	July 12, 1878	July 12, 1878.
20	6 north	18 east	25, 231. 72	July 12, 1878	July 12, 1878.
21	6 north	19 east	25, 269. 00	July 12, 1878	July 12, 1878.
22	6 north	20 east	25, 232. 07	July 12, 1878	July 12, 1878.
23	7 north	5 west	14, 299. 48	Aug. 1, 1878	Aug. 1, 1878.
24	8 north	4 west	24, 138. 45	Aug. 1, 1878	Aug. 1, 1878.
25	8 north	5 west	7, 360. 00	Aug. 1, 1878	Aug. 1, 1878.

BOZEMAN LAND OFFICE, BOZEMAN, MONT.

26	4 north	16 east	22, 951. 28	Nov. 15, 1877	Nov. 15, 1877.
27	4 north	17 east	22, 832. 62	Dec. 5, 1877	Dec. 5, 1877.
28	4 north	18 east	22, 963. 80	Dec. 5, 1877	Dec. 5, 1877.
29	4 north	19 east	23, 061. 91	July 5, 1878	July 5, 1878.
30	4 north	20 east	23, 061. 91	July 5, 1878	July 5, 1878.
31	2 south	22 east	6, 119. 00	July 16, 1878	July 16, 1878.
32	3 south	21 east	4, 291. 84	July 16, 1878	July 16, 1878.
33	3 south	22 east	1, 837. 74	July 16, 1878	July 16, 1878.

ROSWELL H. MASON,
United States Surveyor General for Montana.

G.—Statement showing the condition of the appropriation for the salary of the surveyor general for Montana during the fiscal year ending June 30, 1878.

DR.			CR.		
1877.			1877.		
Aug. 28	To Andrew J. Smith, first quarter.....	\$440 83	Mar. 3	By appropriation.....	\$2,750 00
Dec. 31	To Roswell H. Mason, second quarter.....	635 19			
1878.					
Mar. 31	To Roswell H. Mason, third quarter.....	687 50			
June 30	To Roswell H. Mason, fourth quarter.....	687 50			
	To balance.....	298 98			
		<u>2,750 00</u>			<u>2,750 00</u>

ROSWELL H. MASON,
United States Surveyor General for Montana.

H.—Statement showing the condition of the appropriation for the clerks in the office of the surveyor general for Montana for the fiscal year ending June 30, 1878.

DR.			CR.		
1877.			1877.		
Sept. 30	To George F. Marsh, chief clerk.....	\$450 00	Mar. 3	By appropriation.....	\$3,000 00
30	To John M. Marsh, draughtsman.....	375 00			
Nov. 14	To George F. Marsh, chief clerk.....	78 26			
Dec. 31	To William T. McFarland, chief clerk.....	322 85			
31	To John M. Marsh, draughtsman.....	375 00			
1878.					
Mar. 31	To William T. McFarland, chief clerk.....	450 00			
31	To John M. Marsh, draughtsman.....	375 00			
June 30	To William T. McFarland, chief clerk.....	450 00			
30	To John M. Marsh, draughtsman.....	123 60			
30	To balance.....	29			
		<u>3,000 00</u>			<u>3,000 00</u>

ROSWELL H. MASON,
United States Surveyor General for Montana.

I.—Statement showing the condition of the appropriation for incidental expenses for the office of the surveyor general for Montana for the fiscal year ending June 30, 1878.

DR.			CR.		
1877.			1877.		
Sept. 30	To K. M. Smith, rent.....	\$180 00	March 3,	By appropriation	\$1,500 00
30	To C. K. Wells, stationery.....	83 98			
30	To Benj. Franklin, messenger.....	150 00			
30	To F. A. Underhill, wood.....	30 00			
30	To Geo. F. Marsh, sundries.....	73 03			
Oct. 11	To D. McClelland, township plats, &c.....	46 00			
27	To Peter Spurzum, drayage.....	14 00			
Nov. 8	To K. M. Smith, rent.....	15 65			
21	To Kerley, McQuaid & La- croix, printing.....	11 25			
Dec. 31	To Fisk Bros., rent.....	109 57			
31	To Benj. Franklin, messenger.....	11 41			
31	To H. M. Parchen & Co., lamps, oil, &c.....	16 80			
31	To Joseph Black, plat and field notes, cases, &c.....	120 50			
31	To C. K. Wells, stationery.....	51 69			
31	To John E. Howard, messenger.....	35 70			
31	To Roswell H. Mason, sundries.....	13 75			
1878.					
Jan. 7	To Ross Deegan, wood.....	34 50			
15	To W. & L. E. Gurley, instru- ments, &c.....	42 37			
Mar. 31	To John E. Howard, messenger.....	45 00			
31	To Roswell H. Mason, sundries.....	21 88			
31	To Fisk Bros., rent.....	120 00			
31	To Helena Water Co., water...	12 00			
31	To Auerbach, Wells & Co., stationery.....	27 15			
31	To Kinna & Jack, sundries.....	12 50			
April 1	To Masters & Stone, mineral plats.....	75 00			
June 29	To John E. Howard, messenger.....	26 22			
30	To Fisk Bros., rent.....	120 00			
30	To balance.....	05			
		1,500 00			1,500 00

ROSWELL H. MASON,
United States Surveyor General for Montana.

J.—Statement showing the condition of the account of special deposits for office work in the office of the surveyor general for Montana for the fiscal year ending June 30, 1878.

DR.			CR.		
1877.			1878.		
July 1	To balance from last fiscal year.....	\$1,816 03	June 30	By amount deposited for office work on surveys of mining claims during the fiscal year, as per Exhibit B.....	\$3,150 00
Sept. 30	To Edward B. Bonnell, first quarter.....	390 00			
30	To K. M. Smith, first quarter.....	375 00			
Dec. 31	To Edward B. Bonnell, second quarter.....	385 00	30	By deficiency.....	853 93
1878.					
Mar. 31	To Edward B. Bonnell, third quarter.....	357 50			
June 30	To Edward B. Bonnell, fourth quarter.....	429 00			
30	To John M. Marsh, fourth quarter.....	251 40			
		4,003 93			4,003 93

ROSWELL H. MASON,
United States Surveyor General for Montana.

K.—Statement showing the number of plats made in the office of the surveyor general for Montana during the fiscal year ending June 30, 1878.

Description.	Original.	Department.	Local land office.	Posting.	Tracings.	Skeleton.	Total.
Plats of standard lines	3	3					6
Plats of meridian lines	3	3					6
Plats of subdivision lines	33	33	33				99
Plats of mineral claims	118	118	118	120			474
Plats (supplementary) showing location of mineral claims	4					30	30
Plats showing location of contracts						8	12
Plats, tracings of					4		4
Plats, supplemental		3					3
Total	161	160	151	120	4	38	634

ROSWELL H. MASON,
United States Surveyor General for Montana.

L.—Statement showing the number of acres of public land surveyed in Montana Territory from the inception of surveys to the close of the fiscal year ending June 30, 1878.

	Acres.
Number of acres surveyed to June 30, 1877	9, 646, 266. 51
Number of acres surveyed during the fiscal year ending June 30, 1878.	624, 713. 36
Number of acres surveyed (mineral land) on unsurveyed land during the fiscal year ending June 30, 1878	1, 410. 16
Total number of acres surveyed to June 30, 1878	10, 272, 390. 03

ROSWELL H. MASON,
United States Surveyor General for Montana.

M.—Statement showing the number of linear miles run, the rate per mile, and the total cost of surveys in the Territory of Montana during the fiscal year ending June 30, 1878.

Description.	Miles.	Chains.	Links.	Rate per mile.	Amount.
No timber:					
Base line	50	8	65	\$10	\$500 08
Meridian lines	65	17	96	10	652 24
Standard lines	192	40	29	10	1, 925 03
Township lines	200	72	59	7	1, 406 34
Section lines	1, 264	9	94	6	7, 583 97
Meander lines	13	75	1	6	83 62
Through timber:					
Base line	6	71	35	16	110 27
Meridian lines	15	53	10	16	250 62
Standard lines	7	0	08	16	112 01
Township lines	83	69	69	14	1, 174 20
Section lines	286	20	38	10	3, 605 15
Totals:					
Base line	57	0	0	\$10 and 16	610 35
Meridian lines	80	71	6	10 and 16	902 86
Standard lines	199	40	37	10 and 16	2, 037 04
Township lines	284	62	28	7 and 14	2, 580 54
Section lines	1, 550	30	32	6 and 10	11, 189 12
Meander lines	13	75	1	6	83 62
Office and incidental expenses					6, 950 68
Total cost of surveys					24, 254 21

ROSWELL H. MASON,
United States Surveyor General for Montana.

N.—Statement giving the names, nativity, &c., of the surveyor general and the employes in his office at Helena, Mont., during the fiscal year ending June 30, 1878.

Name.	Occupation.	Nativity.	Whence appointed.	Salary.	Date of appointment.	Remarks.
Andrew J. Smith	Surveyor general.	New York	New York	\$2,750	Dec. 18, 1873	* Aug. 28, 1877.
Roswell H. Mason	do	Connecticut.	Montana	2,750	Sept. 7, 1877	
George F. Marsh	Chief clerk.	Vermont	do	1,800	July 1, 1877	† Oct. 16, 1877.
Wm. T. McFarland	do	Indiana	do	1,800	Oct. 27, 1877	
John M. Marsh	Draughtsman	do	do	1,500	July 1, 1877	
Edward B. Bonnell	Mineral clerk	New York	do	1,500	July 1, 1877	
K. M. Smith	do	do	do	1,500	Aug. 21, 1874	† Sept. 27, 1877.
Benjamin Franklin	Messenger	Virginia	do	600	June 3, 1877	† Oct. 7, 1877.
John E. Howard	do	England	do	180	Oct. 20, 1877	§ May 15, 1878.

* Suspended by order of the President, dated August 14, 1877, received August 28, 1877.

† Discharged.

‡ Resigned.

§ Services dispensed with for balance of fiscal year, as appropriation was exhausted.

ROSWELL H. MASON,
United States Surveyor General for Montana.

O.—Statement showing the number of letters recorded in the office of the surveyor general for Montana during the fiscal year ending June 30, 1878.

Letters written to—	Number.	Folios of record.	Letters received from—	Number.	Folios of record.
Commissioner General Land Office.	210	240	Commissioner General Land Office.	105	108
United States deputy surveyors	213	283	United States deputy surveyors	144	199
Miscellaneous	169	170	Miscellaneous	101	112
Total	592	693	Total	350	419
				592	693
Total				942	1,112

ROSWELL H. MASON,
United States Surveyor General for Montana.

P.—Statement of work performed in the office of the surveyor general for Montana during the fiscal year ending June 30, 1878.

Description.	Number.	Number of folios.
Sets of special instructions to accompany contracts for public surveys prepared	12	126
Contracts for public surveys prepared	4	
Plats and tracings showing location of contracts prepared	12	
Original field notes of public surveys examined and approved	48	
Transcripts of field notes of public surveys prepared, examined, and approved	48	2,840
Township plats prepared, examined, and approved	99	
Standard and meridian plats prepared, examined, and approved	12	
Descriptive lists of corners prepared, examined, approved, and transmitted to local land offices	33	396
Descriptive lists of land, soil, &c., prepared, examined, approved, and transmitted to local land offices	33	200
Surveyors accounts for surveys prepared in duplicate	9	
Sets special instructions for mineral surveys prepared	21	546
Estimates for office work on mineral surveys prepared and transmitted to applicants	125	
Orders for mineral surveys prepared and issued to deputy surveyors	124	
Original field notes of mineral surveys examined and approved	118	
Transcripts of field notes of mineral surveys prepared, examined, and approved	118	2,128
Plats of mineral surveys prepared, examined, and approved	474	
Miscellaneous plats prepared	37	
Letters written	592	693
Letters received and filed	350	
Letters recorded	942	1,112
Salary accounts prepared in duplicate	13	
Incidental accounts prepared in duplicate	27	
Annual report prepared in triplicate	1	87
Sets accompanying statements prepared in duplicate	15	138
Total number of folios		8,266

ROSWELL H. MASON,
United States Surveyor General for Montana.

Q.—*Estimate for surveying services and office expenses in the district of Montana for the fiscal year ending June 30, 1880.*

FIELD WORK.

For surveying 110 miles base line, at \$10.....	\$1,100 00
For surveying 100 miles standard lines, at \$10	1,000 00
For surveying 60 miles meridian lines, at \$10	600 00
For surveying 900 miles township lines, at \$7.....	6,300 00
For surveying 2,400 miles section lines, at \$6.....	14,400 00
For surveying 100 miles meander lines, at \$10.....	1,000 00
For surveying heavily timbered and mountainous land, at rates not exceeding \$16 for standard, \$14 for township, and \$10 for section lines.....	10,000 00
	\$34,400 00

OFFICE WORK.

For salary of surveyor general.....	3,000 00
For salary of chief clerk	1,800 00
For salary of draughtsman.....	1,500 00
For salary of transcript clerk	1,500 00
For incidental expenses, messenger, rent, fuel, lights, station- ery, &c.....	1,500 00
For mounting and binding maps and field notes, and office fur- niture	1,000 00
	10,300 00

Total 44,700 00

ROSWELL H. MASON,

United States Surveyor General for Montana.

J.—*Report of the surveyor general of Idaho.*

SURVEYOR GENERAL'S OFFICE,

Boise City, Idaho, August 13, 1878.

SIR: In compliance with your instructions, I have the honor to submit the annual report, in duplicate, of this surveying district for the fiscal year ending June 30, 1878, together with the usual tabular statements relating thereto.

A. Estimate of expenses incidental to the survey of public lands in Idaho for the fiscal year ending June 30, 1880.

B. Statement of expenditure of appropriation for compensation of surveyor general and clerks in his office for the fiscal year ending June 30, 1878.

C. Statement of incidental and office expenses for the fiscal year ending June 30, 1878.

D. Statement of expenditure of appropriation for surveys for the fiscal year ending June 30, 1878.

E. Statement of original maps and copies transmitted to the General Land Office and to the district office since the last report.

F. Statement showing the condition of contracts entered into since June 30, 1877.

G. Statement of descriptive list sent to the local land office since the date of last report.

H. Tabular list of townships surveyed since the date of last report, showing the areas of the public lands.

I. Statement of applications for the survey of mineral lands and mill sites for the fiscal year ending June 30, 1878.

J. Statement of amount deposited with the United States assistant treasurer for office work for mineral claims in Idaho for the fiscal year ending June 30, 1878.

K. Names, nativity, &c., of surveyor general, clerks, &c., in his office at Boise City, Idaho, during the fiscal year ending June 30, 1878.

On assuming charge of this office on the 16th day of July, 1878, I found that my predecessor, the Hon. La Fayette Cartee, had all the office work completed up to that date. I am also much indebted to him for the tabular statements accompanying this report, they being all completed on my taking charge of this office. Too much praise and credit cannot be awarded to Mr. Cartee for the neatness, correctness, and efficiency he has displayed while in charge of the office of United States surveyor general.

The surveys of the public lands for the fiscal year just closed have been confined to the southern and southeastern portions of this Territory, where there are yet large

portions of valuable agricultural lands unsurveyed, which are being gradually settled. Especially is this the case on the line and in the vicinity of the Utah Northern Railroad, which is expected to be completed to Snake River, in the vicinity of Old Fort Hall, some time this fall.

The surveys contracted for by my predecessor during the last fiscal year have been all completed and notes returned, with the exception of Mr. Allen M. Thompson's, whose work lay in close proximity to the hostile Indians; and on account of their hostility I have granted an extension of time to complete the surveys named in his contract, No. 74, dated February 20, 1878.

OFFICE WORK.

Some of the field notes of the survey of townships contracted for during the last fiscal year have been carefully examined, approved and protracted. Triplicate plats of each one constructed and transmitted as required by law and regulations. Transcripts of the field notes have been prepared and transmitted to the General Land Office, all of which have been carefully compared with the originals.

The field notes of contract No. 73, dated November 27, 1877, have just been received and will soon be examined and protracted.

In connection with office work, I respectfully but earnestly call your attention to the small amount appropriated to this office for clerk hire. It is impossible to keep a competent chief clerk and draughtsman the entire year on so small an appropriation. The chief clerk receives \$1,500 per annum, which leaves only \$1,000 for the salary of draughtsman; and in a country where board and lodging alone costs from \$12 to \$15 per week no person can afford to work for so small a sum; consequently the draughtsman has to be hired temporarily, which, to say the least, is very detrimental and sometimes a serious impediment to office work, for a competent draughtsman cannot always be obtained. It may be said we have a relief in the special deposit fund. True, it will make up a part of the deficiency, but it comes at such uncertain times and irregular amounts as to make it impossible for me to engage a competent draughtsman for the entire year. Men who are employed this month and discharged next are not always the most desirable class to have in the responsible position of draughtsman, and do not stay long enough to become proficient and expert in their duties. I hope Congress will give us an appropriation large enough to keep a chief clerk and draughtsman the entire year.

In compliance with your letter of May 1, 1878, my predecessor forwarded you an estimate for the surveys in this surveying district for the fiscal year ending June 30, 1880. The estimates are as low as the best interest of the surveying service requires.

The first standard parallel north ought to be extended the distance given, for many valuable mines and rich agricultural valleys lie contiguous to it.

The third standard parallel ought to be run to the east boundary of the Territory. It will run (it is believed) through one of the largest and finest valleys in the Territory, situated on the Upper Payette River, and will run in close proximity to the famous Yankee Fork mines, which, if reports are true, are second to none in the richness of its ores.

The timber lands also ought to be surveyed, for, judging by the present despoliation of valuable timber, the day is not far distant when our heavily timbered mountains will be stripped of timber and thus become worthless to the government, yet at the present rates allowed by law it is almost impossible to get competent surveyors to take a contract in a timbered and mountainous country.

I am, sir, very respectfully, your obedient servant,

WM. P. CHANDLER,
Surveyor General of Idaho.

Hon. J. A. WILLIAMSON,
Commissioner General Land Office.

A.—*Estimate of expenses incidental to the survey of the public lands in Idaho for the fiscal year ending June 30, 1880.*

OFFICE EXPENSES.

For salary of surveyor general	\$3,000 00	
For salary of clerks	4,000 00	
For rent of office, messenger, fuel, books, and other expenses ...	2,000 00	
		\$9,000 00

SURVEYING SERVICE.

For surveying first standard parallel north 96 miles, at \$15 per mile	1,440 00
For surveying third standard parallel north 180 miles, at \$15 per mile	2,700 00

For surveying 120 miles exterior lines timber land in mountains, at \$15 per mile	\$1,800 00	
For surveying 600 miles subdivision lines timber land in mountains, at \$12 per mile	7,200 00	
For surveying 360 miles exterior lines, 30 townships, at \$12 per mile	4,300 00	
For surveying 1,200 miles subdivision lines, 20 townships, at \$10 per mile	12,000 00	
		29,440 00
		38,440 00

B.—Statement of expenditure of appropriation for compensation of surveyor general and clerks in his office for the fiscal year ending June 30, 1878.

DR.			CR.		
1877	To amount expended third quarter 1877.....	\$1,161 27	1877	By appropriation of March 3, 1877.	\$5,000 00
	To amount expended fourth quarter 1877.....	1,283 70			
1878	To amount expended first quarter 1878.....	1,300 00			
	To amount expended second quarter 1878.....	1,250 00			
	To balance	5 03			
		5,000 00			5,000 00

C.—Statement of incidental and office expenses for the fiscal year ending June 30, 1878.

DR.			CR.		
1877	To amount expended third quarter 1877.....	\$467 00	1877	By appropriation of March 3, 1877.	\$1,500 00
	To amount expended fourth quarter 1877.....	309 25			
1878	To amount expended first quarter 1878.....	314 50			
	To amount expended second quarter 1878.....	401 75			
	To balance	7 50			
		1,500 00			1,500 00

D.—Statement of the expenditure of the appropriation for the fiscal year ending June 30, 1878.

DR.			CR.		
1877	To amount reported for payment on contract No. 67, to John B. David	\$4,028 90	1876	By balance of appropriation of 1876	\$12,059 13
	do	562 56			
	To amount reported for payment on contract No. 68, to John B. David	2,311 63			
	To amount reported for payment on contract No. 70, to Allen M. Thompson	2,487 38			
	To balance unexpended	2,668 66			
		12,059 13			12,059 13
1878	To amount reported for payment on contract No. 71, to John B. David	4,313 11	1877	By appropriation of March 3, 1877.	14,400 00
	To amount reported for payment on contract No. 72, to Allen M. Thompson	3,365 27	1878		
	do	281 20			
	To balance covered by contracts	6,440 42			
		14,400 00			14,400 00

E.—Statement of original maps and copies transmitted to the General Land Office and to the district office since my last report.

Descriptive plats.	Original.	General Land Office.	District office.	Total.	When transmitted to the General Land Office.	When transmitted to the district office.
Guide meridian between ranges 29 and 30 east, and base line through ranges 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, and 42 east	1	1	.....	2	Aug. 25, 1877	.....
Exterior lines of townships 2 and 3 south, range 34 east; township 1 north, ranges 36, 37, and 38 east; and townships No. 1, 2, and 3 south, ranges 35, 36, and 37 east	1	1	.....	2	Aug. 25, 1877	.....
Township 2 south, range 35 east	1	1	1	3	Aug. 25, 1877	Aug. 25, 1877
Township 1 south, range 36 east	1	1	1	3	Aug. 25, 1877	Aug. 25, 1877
Township 1 south, range 37 east	1	1	1	3	Aug. 25, 1877	Aug. 25, 1877
Township 1 north, range 37 east	1	1	1	3	Aug. 25, 1877	Aug. 25, 1877
Township 1 north, range 38 east	1	1	1	3	Aug. 25, 1877	Aug. 25, 1877
Township 2 south, range 36 east	1	1	1	3	Oct. 5, 1877	Oct. 5, 1877
Township 2 south, range 37 east	1	1	1	3	Oct. 5, 1877	Oct. 5, 1877
Exterior lines of townships 13, 14, 15, and 16 south, ranges 30, 31, and 32 east, and townships 13 and 14 south, range 33 east	1	1	.....	2	Oct. 18, 1877	.....
Township 15 south, range 30 east	1	1	1	3	Oct. 18, 1877	Oct. 18, 1877
Township 16 south, range 30 east	1	1	1	3	Oct. 18, 1877	Oct. 18, 1877
Township 15 south, range 32 east	1	1	1	3	Oct. 18, 1877	Oct. 18, 1877
Township 16 south, range 32 east	1	1	1	3	Oct. 18, 1877	Oct. 18, 1877
Exterior lines of townships 3, 4, 5, and 6 south of ranges 14, 15, and 16 east	1	1	.....	2	Oct. 23, 1877	.....
Township 6 south, range 13 east	1	1	1	3	Oct. 23, 1877	Oct. 23, 1877
Township 4 south, range 14 east	1	1	1	3	Oct. 23, 1877	Oct. 23, 1877
Township 5 south, range 14 east	1	1	1	3	Oct. 23, 1877	Oct. 23, 1877
Township 6 south, range 14 east	1	1	1	3	Oct. 23, 1877	Oct. 23, 1877
Township 5 south, range 15 east	1	1	1	3	Oct. 23, 1877	Oct. 23, 1877
Township 6 south, range 15 east	1	1	1	3	Oct. 23, 1877	Oct. 23, 1877
Exterior lines of township 2 north, ranges 36, 37, and 38 east; township 3 north, range 38 east; and townships 1, 2, and 3 north, ranges 39, 40, and 41 east	1	1	.....	2	Feb. 5, 1878	.....
Township 2 north, range 37 east	1	1	1	3	Feb. 5, 1878	Feb. 5, 1878
Township 2 north, range 38 east	1	1	1	3	Feb. 5, 1878	Feb. 5, 1878
Township 3 north, range 38 east	1	1	1	3	Feb. 5, 1878	Feb. 5, 1878
Township 2 north, range 39 east	1	1	1	3	Feb. 5, 1878	Feb. 5, 1878
Township 3 north, range 39 east	1	1	1	3	Feb. 5, 1878	Feb. 5, 1878
Township 2 north, range 40 east	1	1	1	3	Feb. 5, 1878	Feb. 5, 1878
Township 3 north, range 40 east	1	1	1	3	Feb. 5, 1878	Feb. 5, 1878
Township 2 north, range 41 east	1	1	1	3	Feb. 5, 1878	Feb. 5, 1878
Township 3 north, range 41 east	1	1	1	3	Feb. 5, 1878	Feb. 5, 1878
Exterior lines of townships 1, 2, 3, and 4 north, ranges 5 and 6 west, and townships 1, 2, 3, 4, and 5 south, ranges 5 and 6 west	1	1	.....	2	Feb. 18, 1878	.....
Township 2 north, range 5 west	1	1	1	3	Feb. 18, 1878	Feb. 18, 1878
Township 3 north, range 5 west	1	1	1	3	Feb. 18, 1878	Feb. 18, 1878
Township 4 north, range 5 west	1	1	1	3	Feb. 18, 1878	Feb. 18, 1878
Township 3 north, range 4 west	1	1	1	3	Feb. 18, 1878	Feb. 18, 1878
Township 4 south, range 5 west	1	1	1	3	Feb. 18, 1878	Feb. 18, 1878
Township 5 south, range 5 west	1	1	1	3	Feb. 18, 1878	Feb. 18, 1878
Township 3 south, range 6 west	1	1	1	3	Feb. 18, 1878	Feb. 18, 1878
Township 4 south, range 6 west	1	1	1	3	Feb. 18, 1878	Feb. 18, 1878
Township 5 south, range 6 west	1	1	1	3	Feb. 18, 1878	Feb. 18, 1878
Township 3 north, range 6 west	1	1	1	3	Apr. 11, 1878	Apr. 11, 1878
Township 4 north, range 6 west	1	1	1	3	Apr. 11, 1878	Apr. 11, 1878
Township 5 north, range 6 west	1	1	1	3	Apr. 11, 1878	Apr. 11, 1878

FORT HALL INDIAN RESERVATION.

Descriptive plats.	Original.	General Land Office.	Indian Office.	District office.	Total.	When transmitted to the General Land Office.	When transmitted to the district office.
Fractional township 2 south, range 36 east	1	1	1	1	4	Nov. 6, 1877	Nov. 6, 1877

F.—Statement showing the condition of contracts entered into since June 30, 1877.

Number of contract.	Name of deputy.	Date of contract.	Character, amount, and locality of work.	Remarks.
71	John B. David	Aug. 1, 1877	Exterior lines of township 2 north, range 37 east; townships 2 and 3 north, range 38 east, and townships 1, 2, and 3 north, ranges 39, 40, and 41 east, and subdivision of township 2 north, range 37 east; townships 2 and 3 north, ranges 38, 39, 40, and 41 east.	Surveys completed and notes returned and approved, and plats and transcripts transmitted.
72	Allen M. Thompson...	Sept. 1, 1877	Exterior lines of townships 1, 2, 3, and 4 north, ranges 5 and 6 west, and of township 5 north, range 6 west, and townships 1, 2, 3, 4, and 5 south, ranges 5 and 6 west, and subdivisions of township 3 north, range 4 west; townships 2, 3, and 4 north, range 5 west; townships 3, 4, and 5 north, range 6 west, and townships 4 and 5 south, ranges 5 and 6 west.	Surveys completed and notes returned and approved, and plats and transcripts transmitted. NOTE.—Township 3 south, range 6 west, included.
73	John B. David.....	Nov. 27, 1877	Exterior lines of townships 3 and 4 north, range 37 east, and townships 4 and 5 north, ranges 38, 39, 40, and 41 east, and subdivisions of townships 3 and 4 north, range 37 east, and townships 4 and 5 north, ranges 38, 39, 40, and 41 east.	Deputy in the field.
74	Allen M. Thompson....	Feb. 20, 1878	Exterior lines of townships 1, 2, 3, 4, 5, and 6 south, ranges 17, 18, and 19 east, and townships 13, 14, 15, and 16 south, ranges 23, 24, and 25 east, and subdivisions of townships 13, 15, and 16 south, range 25 east, and of township 16 south, range 24 east.	Deputy in the field.

G.—Statement of descriptive list sent to the local land office since my last report.

Township.	Range.	Date when transmitted.	Township.	Range.	Date when transmitted.
2 south.....	35 east.....	June 30, 1878	2 north.....	41 east.....	June 30, 1878.
1 south.....	36 east.....	June 30, 1878	6 south.....	13 east.....	June 30, 1878.
2 south.....	36 east.....	June 30, 1878	4 south.....	14 east.....	June 30, 1878.
1 south.....	37 east.....	June 30, 1878	5 south.....	14 east.....	June 30, 1878.
2 south.....	37 east.....	June 30, 1878	6 south.....	14 east.....	June 30, 1878.
1 north.....	37 east.....	June 30, 1878	5 south.....	14 east.....	June 30, 1878.
1 north.....	38 east.....	June 30, 1878	6 south.....	15 east.....	June 30, 1878.
15 south.....	30 east.....	June 30, 1878	2 north.....	5 west.....	June 30, 1878.
16 south.....	30 east.....	June 30, 1878	3 north.....	5 west.....	June 30, 1878.
15 south.....	32 east.....	June 30, 1878	4 north.....	5 west.....	June 30, 1878.
16 south.....	32 east.....	June 30, 1878	3 north.....	4 west.....	June 30, 1878.
3 north.....	38 east.....	June 30, 1878	4 south.....	5 west.....	June 30, 1878.
2 north.....	37 east.....	June 30, 1878	5 south.....	5 west.....	June 30, 1878.
3 north.....	41 east.....	June 30, 1878	3 south.....	6 west.....	June 30, 1878.
2 north.....	38 east.....	June 30, 1878	4 south.....	6 west.....	June 30, 1878.
2 north.....	39 east.....	June 30, 1878	5 south.....	6 west.....	June 30, 1878.
3 north.....	39 east.....	June 30, 1878	3 north.....	6 west.....	June 30, 1878.
2 north.....	40 east.....	June 30, 1878	4 north.....	6 west.....	June 30, 1878.
3 north.....	40 east.....	June 30, 1878	5 north.....	6 west.....	June 30, 1878.

H.—*Tabular list of townships surveyed since the date of my last report, showing the areas of the public lands.*

Number of townships surveyed.	Townships.	Range.	Area of public lands.	Number of townships surveyed.	Townships.	Range.	Area of public lands.
			<i>Acres.</i>				<i>Acres.</i>
1	2 south	35 east..	21, 178. 79	23.....	2 north	40 east..	22, 963. 77
2	1 south	36 east..	20, 846. 60	24	3 north	40 east..	22, 942. 26
3	1 south	37 east..	21, 498. 70	25.....	2 north	41 east..	23, 029. 02
4	1 north	37 east..	22, 005. 68	26.....	3 north	41 east..	16, 668. 77
5	1 north	38 east..	23, 041. 78	27.....	2 north	5 west ..	22, 987. 79
6	2 south	36 east..	20, 009. 36	28.....	3 north	5 west ..	22, 230. 21
7	2 south	37 east..	7, 528. 88	29.....	4 north	5 west ..	22, 549. 25
8	15 south	30 east..	22, 892. 38	30.....	3 north	4 west ..	21, 961. 51
9	16 south	30 east..	18, 396. 69	31.....	4 south	5 west ..	22, 990. 15
10.....	15 south	32 east..	22, 908. 11	32.....	5 south	5 west ..	23, 075. 89
11.....	16 south	32 east..	18, 045. 33	33.....	3 south	6 west ..	2, 605. 20
12.....	6 south	13 east..	22, 511. 85	34.....	4 south	6 west ..	2, 610. 52
13.....	4 south	14 east..	2, 560. 00	35.....	5 south	6 west ..	7, 849. 54
14.....	5 south	14 east..	15, 343. 90	36.....	3 north	6 west ..	3, 532. 52
15.....	6 south	14 east..	17, 921. 80	37.....	4 north	6 west ..	6, 832. 18
16.....	5 south	15 east..	23, 018. 58	38.....	5 north	6 west ..	6, 007. 44
17.....	6 south	15 east..	11, 522. 88	FORT HALL INDIAN RESERVATION.			676, 269. 70
18.....	2 north	37 east..	22, 315. 19	39			1, 725. 04
19.....	2 north	38 east..	22, 957. 58	Total area			677, 994. 74
20.....	3 north	38 east..	22, 980. 63	338 townships of public lands previously reported			5, 555, 452. 55
21.....	2 north	39 east..	22, 970. 47	36 townships of Indian reservations previously reported			463, 182. 24
22.....	3 north	39 east..	22, 978. 50	Total acres surveyed			6, 696, 629. 53

I.—*Statement of applications for the survey of mineral lands and mill sites for the fiscal year ending June 30, 1878.*

Name of mine.	Mining district.	County.	Character.
O. P. Corbet.....	Grimes Pass	Boise	Placer gold.
Idaho .....	.....	Oneida.....	Sulphur.
Soda Springs and Sulphur Lake.....	.....	do	Do.
Daley Mine	Middle Boise.....	Alturas.....	Gold and silver.
Monarch Gold and Silver Company	do	do	Gold.
Placer claim	do	do	
Greenback mill site	do	do	
Monarch mill site	do	do	
Daley mill site	do	do	

J.—*Statement of amount deposited with the United States assistant treasurer for office work for mineral claims in Idaho for the fiscal year ending June 30, 1878.*

Date of deposit.	Name of depositor.	Amount.	Name of mine.	Where located.	Remarks.
1877.					
Dec. 17	Stevenson & Noble.	\$29 00	O. P. Corbet.....	Grimes Pass, Boise County.	Goldplacer.
1878.					
Mar. 26	Avie Pinedo	29 00	Idaho	Oneida County.....	Sulphur.
Mar. 26	do	29 00	Soda Spring and Sulphur Lake.	do	Do.
June 8	E. C. Atkins.....	29 00	Daley.....	Alturas County....	Gold and silver.
June 8	do	29 00	Monarch Gold and Silver Mining Company's placer.	do	Gold.
June 8	do	29 00	Monarch Gold and Silver Mining Company's mill site.	do	
June 8	do	29 00	Greenback mill site	do	
June 8	do	29 00	Daley mill site.....	do	
		241 00			

K.—Names, nativity, &c., of surveyor general, clerks, &c., in his office at Boise City, Idaho, during the fiscal year ending June 30, 1878.

Name.	Occupation.	Nativity.	Whence appointed.	Time of service.	Amount.
La Fayette Cartee	Surveyor-general ..	New York ..	Idaho	Entire year...	\$2,500 00
Theophilus W. Randall	Chief clerk	England	do	do	*1,500 00
Ross Cartee	Draughtsman	Oregon	do	10 months and 3 days.	1,011 27
Thomas Conroy	Messenger	Ireland	do	Entire year...	600 00
					5,611 27

* \$16.50 of this amount paid out of special deposits for mineral claims.

K.—Report of the surveyor general of Utah.

UNITED STATES SURVEYOR GENERAL'S OFFICE,
Salt Lake City, Utah, August 26, 1878.

SIR: In compliance with instructions contained in your circular letter E of May 1, 1878, I have the honor to transmit herewith the annual report of this office, with accompanying tabular statements (in duplicate) of the surveying operations in this district for the year ending June 30, 1878.

A. Statement showing condition of surveys of public lands contracted for during the fiscal year ending June 30, 1876, and returned during the fiscal year ending June 30, 1878.

B. Statement showing condition of surveys of public lands contracted for during the fiscal year ending June 30, 1878.

C. Statement showing the number of townships, with character and extent of surveys, and amount of area of public lands returned during fiscal year ending June 30, 1878.

D. Statement of approval of public surveys and transmission of copies of the same to the General Land Office and to the district land office during the fiscal year ending June 30, 1878.

E. Statement of work executed in the surveyor general's office of Utah for the fiscal year ending June 30, 1878.

F. Statement showing the number of linear miles run, the rate per mile, and the total cost of public surveys, as returned, in Utah, for the fiscal year ending June 30, 1878.

G. Statement showing the number of acres of public lands surveyed in Utah Territory since the inception of surveys up to June 30, 1878.

H. Statement of special deposits made by individuals for the survey of public lands in Utah for the fiscal year ending June 30, 1878.

I. Statement showing mining claims surveyed, by whom surveyed, when approved, and amount of deposit for office work on each claim.

J. Statement showing condition of appropriation for incidental expenses for office of surveyor general of Utah Territory for fiscal year ending June 30, 1878.

K. Statement showing condition of appropriation for salaries of surveyor general of Utah Territory and clerks in his office for fiscal year ending June 30, 1878.

L. Statement showing condition of special deposits for office work in the office of the surveyor general of Utah Territory for the fiscal year ending June 30, 1878.

M. Estimate of appropriation required for the surveying service in the Territory of Utah for the fiscal year ending June 30, 1880.

N. Statement of condition of appropriation for surveys of public lands in Utah Territory for the fiscal year ending June 30, 1878.

SURVEYS DURING THE YEAR.

The operations of the surveying service in this district embrace agricultural, timber, and mineral lands.

Forty-two townships were surveyed, embracing 237,961.43 acres of agricultural and timber lands, 5,041.56 acres of mineral lands, and 16,933.33 acres of coal lands, making a total of 259,936.32 acres. The number of acres of public lands disposed of at the local land office at Salt Lake City for the fiscal year were—

	Acres.
Homestead entries	83,150.02
Final homestead entries	31,379.28

Cash entries.....	21,584.42
Military land warrants.....	480.26
Timber culture.....	1,280
Desert land.....	25,827.18
Mineral lands.....	469.386
Coal lands.....	160

Total 164,330.546

The mineral resources of this Territory are inexhaustible, every year developing richer and more extensive mines.

FRD. SALOMON,

United States Surveyor General Utah Territory.

Hon. J. A. WILLIAMSON,
Commissioner General Land Office.

A.—Statement showing condition of surveys of public lands contracted for during the fiscal year ending June 30, 1876, and returned during the fiscal year ending June 30, 1878.

Deputy.	Contract.		Surveys.	Extent.	Cost.	Remarks.
	No.	Date.				
Andrew J. Stewart, sr.	66	Oct. 4, 1875	Exterior boundaries of township 7 north, range 2 west, and township 15 north, ranges 1 and 2 east of the Salt Lake meridian.	M. chs. lks. 5 53 45	\$68 02	Payable out of following certificates of special deposits dated August 13, 1877, viz: Nos. 5114, 5116, 5118, 5120, 5122, 5124, 5126, 5128, 5130, 5131, 5133, 5135, 5137, 5139, 5141, 5143, 5145, 5147, 5149, 5151, 5153, 5155, 5157, and 5159.
			Subdivisions of township 7 north, range 2 west, and township 15 north, ranges 1 and 2 east of the Salt Lake meridian.	7 25 06	73 13	
			Total	12 78 51	141 15	

21 1	Deputy.	Contract.		Surveys.	Extent.	Cost.	Remarks.
		No.	Date.				
	Joseph & William A. Gorlinski.	74	Sept. 4, 1876	Exterior boundaries of township 2 south, range 7 west; township 7 south, ranges 11 and 12 west, and township 8 south, range 12 west of the Salt Lake meridian.	M. chs. lks. 12 40 00	\$87 50	
	Augustus D. Ferron...	75	Jan. 23, 1877	Subdivisions of township 2 south, ranges 7 and 8 west, and townships 7 and 8 south, ranges 11 and 12 west of the Salt Lake meridian.	232 34 06	1,394 55	
				Exterior boundaries of township 18 south, range 3 east of the Salt Lake meridian.	1 32 00	9 80	Payable out of following certificates of special deposits, dated September 19, 1876, viz: Nos. 4599 and 4601.
	Newel E. Britt.....	76	Mar. 14, 1877	Subdivisions of townships 16 and 18 south, range 3 east of the Salt Lake meridian.	13 54 79	82 11	
				Exterior boundaries of township 29 south, range 10 west of the Salt Lake meridian.	2 00 00	14 00	Payable out of certificate of special deposits, dated March 24, 1877, No. 4809.
				Subdivisions of township 29 south, range 10 west of the Salt Lake meridian.	11 01 13	66 08	
	Thomas C. Bailey.....	77	June 12, 1877	Subdivisions of township 13 north, range 5 east of the Salt Lake meridian.	1 40 00	9 00	Payable out of certificate of special deposit, dated June 7, 1877, No. 4597.
	Augustus D. Ferron...	78	June 20, 1877	Kolob guide meridian, from corner to townships 39 and 40 south, between ranges 10 and 11 west, north through townships 39 and 38 south, to corner for sections 19, 24, 25, and 30, township 38 south, between ranges 10 and 11 west of the Salt Lake meridian.	2 00 00	20 00	Payable out of certificates of special deposits, dated June 5, 1877, Nos. 4944, 4946, and 4948.
				Ditto mountainous and timbered.....	6 00 00	78 00	
				Eighth standard parallel south from corner to sections 32 and 33 east to corner to sections 33 and 34, in township 40 south, range 11 west, of the Salt Lake meridian.	1 00 00	10 00	
				Exterior boundaries, being the north and south boundaries of township 39 south, range 11 west of the Salt Lake meridian.	7 40 00	52 50	
				Subdivisions of townships 38, 39, and 40 south, range 11 west of the Salt Lake meridian.	66 41 27	399 09	
				Total	357 43 25	2,222 63	

FRD. SALOMON,
United States Surveyor General for Utah.

B.—Statement showing condition of surveys of public lands contracted for during the fiscal year ending June 30, 1878.

Deputy.	Contract.		Surveys.	Extent.	Cost.
	No.	Date.			
Augustus D. Ferron	79	Aug. 27, 1877	Pleasant Valley guide meridian from corner to townships 12 and 13 south, between ranges 6 and 7 east, north through townships 12 and 11 south, and to corner for sections 19, 24, 25, and 30, in township 10 south, between ranges 6 and 7 east, of the Salt Lake meridian.	<i>M. chs. lks.</i> 7 33 50	\$74 12
			Ditto, mountainous and timbered	6 41 50	104 20
			Second standard parallel south from standard corner on south boundary of township 10 south, between ranges 6 and 7 east, east to standard corner to sections 33 and 34 in range 7 east, and west to standard corner to sections 33 and 34 in range 6 east, of the Salt Lake meridian.	1 64 50	18 06
			Ditto, mountainous and timbered	4 15 50	67 00
			Exterior boundaries, being a portion of the south boundary of township 11 south, range 6 east; north and east boundaries of township 12 south, range 7 east; east and south boundaries of township 18 south, range 2 east; east and north boundaries of township 22 south, range 1 east; north boundary of township 22 south, range 2 east; north, south, and east boundaries of township 23 south, range 1 east, and part of north and south boundaries of township 23 south, range 2 east, of the Salt Lake meridian.	25 11 38	176 00
			Ditto, mountainous and timbered	31 04 92	434 88
			Subdivisions of township 11 south, range 6 east; townships 11 and 12 south, range 7 east; additional of a portion of township 18 south, range 2 east; township 22 south, range 1 east; part of township 22 south, range 2 east; township 23 south, range 1 east, and a portion of township 23 south, range 2 east, of the Salt Lake meridian.	133 34 01	800 56
Jas. H. Martineau...	80	Aug. 30, 1877	Ditto, mountainous and timbered	148 36 96	1,484 01
			Second standard parallel north, from standard corner on Salt Lake meridian, on south boundary of township 9 north, east to standard corner to secs. 32 and 33, in range 1 east; thence from standard corner on south boundary of township 9 north, between ranges 1 and 2 east, east through range 2 east, and to 16.32 chains east of $\frac{1}{4}$ section corner, on the standard parallel, on the south boundary of section 34, in range 3 east; thence from standard corner on the Salt Lake meridian on south boundary of township 9 north, west through range 1 west, and to $\frac{1}{4}$ section corner on the standard parallel, on the south boundary of section 35, in range 2 west of the Salt Lake meridian.	40 00	5 00
			Ditto, mountainous and timbered	18 49 01	297 80
			Exterior boundaries being south and east boundaries of township 8 north, range 1 east; south and a portion of east boundary of township 8 north, range 2 east, and portions of the north and west boundaries of township 9 north, range 1 west of the Salt Lake meridian.	2 40 00	17 30
			Ditto, mountainous and timbered	25 36 68	356 42
			Subdivisions of a portion of township 8 north, range 1 east; additional of township 9 north, ranges 1 east and 1 west of the Salt Lake meridian.	10 59 29	64 45
			Ditto, mountainous and timbered	80 74 02	809 25

B.—Statement showing condition of surveys of public lands, &c.—Continued.

Deputy.	Contract.		Surveys, •	Extent.	Cost.
	No.	Date.			
Andrew J. Stewart, jr.	81	Sept. 26, 1877	First standard parallel south, from the established standard corner to townships 5 south, between ranges 2 and 3 east; east through ranges 3, 4, and 5; east to standard corner to sections 31 and 32 in range 6 east. Second standard parallel south from the established standard corner to township 10 south on the Salt Lake meridian; east through ranges 1, 2, 3, 4, and 5, east of the Salt Lake meridian.	<i>M. chs. lks.</i> 24 36 65	\$244 58
Newel E. Britt.....	82	Jan. 8, 1878	Ditto, mountainous and timbered Exterior boundaries of township 28 south, range 13 west, and township 30 south, range 12 west of the Salt Lake meridian. Subdivisions of a part of township 28 south, range 13 west, and township 30 south, range 12 west of the Salt Lake meridian.	24 43 35 29 79 80 23 74 51	392 67 *209 98 143 59
Total				599 55 58	5,700 91
Grand total				970 17 34	8,064 69

* Payable out of certificates of special deposits, dated December 10, 1877, Nos. 5419, 5420, 5421, and 5422

FRD. SALOMON,
United States Surveyor General for Utah.

C.—Statement showing the number of townships, with character and extent of surveys and

Number of township.	Description.		Amount of survey.				Character and amount of		
	Township.	Range.	Meridian.	Standard.	Township.	Section.	Agricultural public lands.	Returned as mineral lands.	Returned as coal lands.
			<i>M.chs. lks.</i>	<i>M.chs. lks.</i>	<i>M.chs. lks.</i>	<i>M.chs. lks.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>
1	16 south....	3 east....				6 63 14	3,000.00		
2	18 south....	3 east....			1 32 00	6 71 65	1,793.96		
3	7 north....	2 west....			1 00 00	1 00 16			
4	15 north..	1 east....			2 53 45	4 79 46	2,210.78		
5	15 north....	2 east....			2 00 00	1 25 44	738.08		
6	29 south....	10 west....			2 00 00	11 01 13	2,640.00		
7	38 south....	11 west....	2 00 00			8 00 16	2,720.00		
8	39 south..	11 west....	6 00 00		7 40 00	35 00 73	12,483.14		
9	40 south....	11 west....		1 00 00		23 40 38	7,042.16		
10	13 north....	5 east....				1 40 00	480.00		
11	2 south..	7 west....			1 00 00	10 77 12	3,818.56		
12	2 south....	8 west....				39 78 54	13,915.68		
13	7 south....	11 west..			3 00 00	22 40 84	7,987.44		
14	7 south....	12 west....			4 00 00	40 78 36	14,215.52		
15	8 south....	11 west....				59 76 48	23,001.66		
16	8 south..	12 west....			4 40 00	58 02 72	21,447.92		
17	10 south....	7 east....	1 75 00						
18	11 south....	6 east....		3 00 00	2 00 00	11 18 29	3,999.36		
19	11 south....	7 east....	6 00 00	3 00 00		33 53 83	11,564.50		
20	12 south....	7 east....	6 00 00		11 77 40	59 72 34	6,000.32		16,933.33
21	8 north....	1 east....			11 78 50	38 00 44	13,107.60		
22	8 north....	2 east....		6 00 00	9 78 08				
23	8 north....	3 east....		3 56 32					
24	8 north....	2 west....		1 32 60					
25	9 north..	1 east....		2 00 09		2 79 92	1,440.32		
26	9 north....	1 west....		6 00 00	6 00 10	50 52 95	13,381.53	4,290.08	
27	18 south..	2 east....			4 69 00	13 27 84	4,229.52		
28	22 south....	1 east....			11 77 88	59 71 45	22,197.47	751.48	
29	22 south....	2 east....			1 77 68	21 72 36	7,760.48		
30	23 south....	1 east..			17 77 24	59 77 06	22,980.61		
31	23 south....	2 east....			5 37 10	21 77 80	7,630.16		
32	5 south....	3 east....		6 00 00					
33	5 south....	4 east....		6 00 00					
34	5 south..	5 east....		6 00 00					
35	5 south..	6 east....		1 00 00					
36	10 south..	1 east....		6 00 00					
37	10 south....	2 east....		6 00 00					
38	10 south....	3 east....		6 00 00					
39	10 south..	4 east....		6 00 00					
40	10 south..	5 east....		6 00 00					
41	28 south..	13 west....			17 76 80	7 73 11	2,494.66		
42	30 south..	12 west....			12 03 00	16 01 40	3,680.00		
Total.....			21 75 00	75 09 01	143 18 23	729 75 10	237,961.43	5,041.56	16,933.33
Grand total of distance			970 17 34						

amount of area of public lands, returned during the fiscal year ending June 30, 1878.

area.				
Total.	Date of survey.	Name of deputy.	Number of contract.	Remarks.
<i>Acres.</i>				
3,000.00	May 26, 1877	Augustus D. Ferron	75	Additional survey.
1,793.96	May 23, 1877	do	75	Do.
	October 16 to 19, 1875	Andrew J. Stewart, sr	66	
2,210.78	May 10, 1876	do	66	
738.08	May 12, 1876	do	66	
2,640.00	May 30 and June 1, 1877	Newel E. Britt	76	Do.
2,720.00	July 27 to August 2, 1877	Augustus D. Ferron	78	
12,483.14	July 26 to August 1, 1877	do	78	
7,042.16	July 25 to 27, 1877	do	78	
480.00	July 10, 1877	Thomas C. Bailey	77	Do.
3,818.56	November 7, 1877	Joseph and William A. Gorluisi	74	
13,915.68	November 1 to 6, 1877	do	74	
7,987.44	November 26 to 28, 1877	do	74	
14,215.52	November 29 to December 4, 1877	do	74	
23,001.66	November 11 to 17, 1877	do	74	
21,447.92	November 18 to 25, 1877	do	74	
	October 25, 1877	Augustus D. Ferron	79	
3,999.36	October 27 to November 6, 1877	do	79	
11,564.50	October 29 to November 3, 1877	do	79	
22,933.65	October 6 to 23, 1877	do	79	
13,107.60	October 15 to November 16, 1877	J. H. Martineau	80	
	October 8 to 23, 1877	do	80	
	October 10 and 11, 1877	do	80	
	December 5, 1877	do	80	
1,440.32	October 5 to December 3, 1877	do	80	Do.
17,671.61	October 3 to December 15, 1877	do	80	Do.
6,229.52	January 11 and 12, 1878	Augustus D. Ferron	79	Do.
22,948.95	December 15, 1877, to January 2, 1878.	do	79	
7,760.48	January 8 to 10, 1878	do	79	
22,980.61	November 29 to December 15, 1877.	do	79	
7,630.16	January 3 to 7, 1878	do	79	
	October 22 and 23, 1877	Andrew J. Stewart, jr	81	
	October 24 to 26, 1877	do	81	
	October 27 to November 5, 1877	do	81	
	November 6, 1877	do	81	
	November 13 to 19, 1877	do	81	
	November 20 and 21, 1877	do	81	
	November 22 and 23, 1877	do	81	
	November 24 and 26, 1877	do	81	
	November 27 to 30, 1877	do	81	
2,494.66	February 9 to 14, 1878	Newel E. Britt	82	
3,680.00	February 15 to April 23, 1878	do	82	
259,936.32				

FRD. SALOMON,
United States Surveyor General for Utah.

D.—Statement of approval of public surveys and transmission of copies of the same to the General Land Office and to the district land office during the fiscal year ending June 30 1878.

Number of townships.	Description.		Original plats and field notes filed in this office.			Duplicates transmitted to the General Land Office.			Triplicates transmitted to the district land office.		
	Township.	Range.	Plats.	Field notes.	Approved.	Plats.	Transcripts.	Transmitted.	Plats.	Descriptive lists.	Transmitted.
1	16 south....	3 east....	1	1	Aug. 22, 1877	1	1	Aug. 22, 1877	1	2	Aug. 24, 1877
2	18 south....	3 east....	1	2	do.....	1	2	do.....	1	2	Do.
3	7 north....	2 west....	1	2	May 4, 1877	1	2	May 29, 1877	1	2	Oct. 5, 1877
4	15 north....	1 east....	1	1	Aug. 30, 1877	1	2	Aug. 30, 1877	1	2	Do.
5	15 north....	2 east....	1	1	do.....	1	2	do.....	1	2	Do.
6	29 south....	10 west....	1	1	Sept. 3, 1877	1	1	Sept. 4, 1877	1	2	Sept. 6, 1877
7	38 south....	11 west....	1	1	Sept. 8, 1877	1	1	Sept. 8, 1877	1	2	Sept. 12, 1877
8	39 south....	11 west....	1	3	do.....	1	3	do.....	1	2	Do.
9	40 south....	11 west....	1	2	do.....	1	2	do.....	1	2	Do.
10	8 north....	2 west....	1	2	May 4, 1877	1	2	May 29, 1877	1	2	Oct. 5, 1877
11	9 north....	1 east....	1	3	do.....	1	3	do.....	1	2	Do.
12	9 north....	1 west....	1	1	do.....	1	1	do.....	1	2	Do.
13	10 north....	1 east....	1	2	do.....	1	2	do.....	1	2	Do.
14	10 north....	1 west....	1	1	do.....	1	1	do.....	1	2	Do.
15	11 north....	1 east....	1	1	do.....	1	1	do.....	1	2	Do.
16	12 north....	1 east....	1	3	do.....	1	3	do.....	1	2	Do.
17	13 north....	1 east....	1	4	do.....	1	4	do.....	1	2	Do.
18	13 north....	1 west....	1	3	do.....	1	3	do.....	1	2	Do.
19	13 north....	2 west....	1	2	do.....	1	2	do.....	1	2	Do.
20	13 north....	3 west....	1	2	do.....	1	2	do.....	1	2	Do.
21	14 north....	1 west....	1	2	do.....	1	2	do.....	1	2	Do.
22	14 north....	2 west....	1	2	do.....	1	2	do.....	1	2	Do.
23	15 north....	1 west....	1	3	do.....	1	3	do.....	1	2	Do.
24	15 north....	3 west....	1	2	do.....	1	2	do.....	1	2	Do.
25	13 north....	5 east....	1	1	Oct. 29, 1877	1	1	Oct. 29, 1877	1	2	Dec. 21, 1877
26	38 south....	5 west....	1	1	Apr. 3, 1877	1	1	Apr. 3, 1877	1	2	Nov. 19, 1877
27	39 south....	5 west....	1	3	do.....	1	3	do.....	1	2	Do.
28	39 south....	6 west....	1	1	do.....	1	1	do.....	1	2	Do.
29	40 south....	4½ west....	1	2	do.....	1	2	do.....	1	2	Do.
30	40 south....	5 west....	1	4	do.....	1	4	do.....	1	2	Do.
31	40 south....	6 west....	1	3	do.....	1	3	do.....	1	2	Do.
32	40 south....	7 west....	1	2	do.....	1	2	do.....	1	2	Do.
33	41 south....	4½ west....	1	1	do.....	1	1	do.....	1	2	Do.
34	41 south....	5 west....	1	3	do.....	1	3	do.....	1	2	Do.
35	41 south....	6 west....	1	1	do.....	1	1	do.....	1	2	Do.
36	41 south....	7 west....	1	2	do.....	1	2	do.....	1	2	Do.
37	42 south....	5 west....	1	1	do.....	1	1	do.....	1	2	Do.
38	43 south....	5 west....	1	1	do.....	1	1	do.....	1	2	Do.
39	42 south....	1 east....	1	2	June 20, 1877	1	2	June 21, 1877	1	4	Dec. 21, 1877
40	43 south....	1 east....	1	1	do.....	1	1	do.....	1	2	Do.
41	43 south....	2 east....	1	1	do.....	1	1	do.....	1	2	Do.
42	41 south....	1 west....	1	1	do.....	1	1	do.....	1	2	Do.
43	41 south....	2 west....	1	1	do.....	1	1	do.....	1	2	Do.
44	42 south....	1 west....	1	1	do.....	1	1	do.....	1	2	Do.
45	42 south....	2 west....	1	1	do.....	1	1	do.....	1	2	Do.
46	42 south....	3 west....	1	2	do.....	1	2	do.....	1	2	Do.
47	42 south....	4 west....	1	1	do.....	1	1	do.....	1	2	Do.
48	42 south....	5 west....	1	1	do.....	1	1	do.....	1	2	Do.
49	2 south....	7 west....	1	2	Jan. 2, 1878	1	1	Jan. 10, 1878	1	2	May 1, 1878
50	2 south....	8 west....	1	1	do.....	1	1	do.....	1	2	Do.
51	7 south....	11 west....	1	2	do.....	1	1	do.....	1	2	Do.
52	7 south....	12 west....	1	2	do.....	1	1	do.....	1	2	Do.
53	8 south....	11 west....	1	1	do.....	1	1	do.....	1	2	Do.
54	8 south....	12 west....	1	2	do.....	1	1	do.....	1	2	Do.
55	10 south....	7 east....	1	1	Jan. 4, 1878	1	1	Jan. 15, 1878	1	2	Apr. 15, 1878
56	11 south....	6 east....	1	3	do.....	1	2	do.....	1	4	Do.
57	11 south....	7 east....	1	1	do.....	1	1	do.....	1	2	Do.
58	12 south....	7 east....	1	2	do.....	1	1	do.....	1	2	Do.
59	43 south....	1 west....	1	1	June 20, 1877	1	1	June 21, 1877	1	2	Feb. 1, 1878
60	43 south....	3 west....	1	1	do.....	1	1	do.....	1	2	Do.
61	43 south....	4 west....	1	1	do.....	1	1	do.....	1	2	Do.
62	43 south....	4½ west....	1	1	do.....	1	1	do.....	1	2	Do.
63	43 south....	5 west....	1	1	do.....	1	1	do.....	1	2	Do.
64	43 south....	6 west....	1	1	do.....	1	1	do.....	1	2	Do.
65	44 south....	3 west....	1	2	do.....	1	2	do.....	1	2	Do.
66	44 south....	4 west....	1	1	do.....	1	1	do.....	1	2	Do.
67	44 south....	4½ west....	1	1	do.....	1	1	do.....	1	2	Do.
68	44 south....	5 west....	1	2	do.....	1	2	do.....	1	2	Do.
69	44 south....	6 west....	1	1	do.....	1	1	do.....	1	2	Do.
70	44 south....	7 west....	1	1	do.....	1	1	do.....	1	4	Do.
71	41 south....	11 west....	1	2	June 30, 1877	1	2	June 30, 1877	1	2	Feb. 8, 1878

D.—Statement of approval of public surveys, &c.—Continued.

Number of townships.	Description.		Original plats and field notes filed in this office.			Duplicates transmitted to the General Land Office.			Triplicates transmitted to the district land office.		
	Township.	Range.	Plats.	Field notes.	Approved.	Plats.	Transcripts.	Transmitted.	Plats.	Descriptive lists.	Transmitted.
72	41 south....	12 west....	1	1	June 30, 1877	1	1	June 30, 1877	1	2	Feb. 8, 1878
73	8 north....	1 east....	1	2	Feb. 23, 1878	1	1	Feb. 25, 1878	1	2	Apr. 15, 1878
74	8 north....	2 east....	1	2	do	1	1	do	1	4	Do.
75	8 north....	3 east....	1	1	do	1	1	do	1	2	Do.
76	8 north....	2 west....	1	1	do	1	1	do	1	2	Do.
77	9 north....	1 east....	1	2	do	1	1	do	1	2	Do.
78	9 north....	1 west....	1	3	do	1	2	do	1	2	Do.
79	40 south....	13 west....	1	2	June 30, 1877	1	2	June 30, 1877	1	2	Mar. 9, 1878
80	41 south....	13 west....	1	1	do	1	1	do	1	2	Do.
81	41 south....	14 west....	1	1	do	1	1	do	1	2	Do.
82	42 south....	11 west....	1	1	do	1	1	do	1	2	Do.
83	18 south....	2 east....	1	2	Mar. 19, 1878	1	2	Mar. 19, 1878	1	2	June 22, 1878
84	22 south....	1 east....	1	2	do	1	2	do	1	2	Do.
85	22 south....	2 east....	1	2	do	1	2	do	1	2	Do.
86	23 south....	1 east....	1	2	do	1	2	do	1	2	Do.
87	23 south....	2 east....	1	2	do	1	2	do	1	2	Do.
88	5 south....	3 east....	1	1	Mar. 25, 1878	1	1	Mar. 25, 1878	1	2	May 1, 1878
89	5 south....	4 east....	1	1	do	1	1	do	1	2	Do.
90	5 south....	5 east....	1	1	do	1	1	do	1	2	Do.
91	5 south....	6 east....	1	1	do	1	1	do	1	2	Do.
92	10 south....	1 east....	1	1	do	1	1	do	1	2	Do.
93	10 south....	2 east....	1	1	do	1	1	do	1	2	Do.
94	10 south....	3 east....	1	1	do	1	1	do	1	2	Do.
95	10 south....	4 east....	1	1	do	1	1	do	1	2	Do.
96	10 south....	5 east....	1	1	do	1	1	do	1	2	Do.
97	39 south....	15 west....	1	1	June 30, 1877	1	1	June 30, 1877	1	2	Apr. 1, 1878
98	39 south....	16 west....	1	1	do	1	1	do	1	2	Do.
99	39 south....	17 west....	1	1	do	1	1	do	1	2	Do.
100	40 south....	16 west....	1	1	do	1	1	do	1	2	Do.
101	40 south....	17 west....	1	1	do	1	1	do	1	2	Do.
102	41 south....	10 west....	1	1	do	1	1	do	1	2	Do.
103	41 south....	15 west....	1	1	do	1	1	do	1	2	Do.
104	41 south....	16 west....	1	1	do	1	1	do	1	2	Do.
105	42 south....	10 west....	1	1	do	1	1	do	1	2	Do.
106	42 south....	12 west....	1	1	do	1	1	do	1	2	Do.
107	42 south....	13 west....	1	1	do	1	1	do	1	2	Do.
108	42 south....	15 west....	1	1	do	1	1	do	1	2	Do.
109	28 south....	13 west....	1	1	May 27, 1878	1	1	May 27, 1878	1	2	June 28, 1878
110	30 south....	12 west....	1	1	do	1	1	do	1	2	Do.
111	6 south....	7 west....	1	2	Apr. 30, 1877	1	2	Apr. 30, 1877	1	2	June 3, 1878
112	6 south....	10 west....	1	...	do	1	...	do	1	2	Do.
113	7 south....	7 west....	1	2	do	1	2	do	1	2	Do.
114	7 south....	8 west....	1	3	do	1	3	do	1	2	Do.
115	7 south....	10 west....	1	1	do	1	1	do	1	2	Do.
116	8 south....	7 west....	1	2	do	1	2	do	1	2	Do.
117	8 south....	8 west....	1	1	do	1	1	do	1	2	Do.
118	8 south....	10 west....	1	2	do	1	2	do	1	2	Do.
119	8 south....	11 west....	1	1	do	1	1	do	1	2	Do.
120	8 south....	12 west....	1	1	do	1	1	do	1	2	Do.
121	8 south....	13 west....	1	1	do	1	1	do	1	2	Do.
122	9 south....	10 west....	1	2	do	1	2	do	1	2	Do.
123	9 south....	11 west....	1	1	do	1	1	do	1	2	Do.
124	9 south....	12 west....	1	2	do	1	2	do	1	2	Do.
125	10 south....	10 west....	1	3	do	1	3	do	1	2	Do.
126	11 south....	8 west....	1	2	do	1	2	do	1	2	Do.
127	12 south....	8 west....	1	2	do	1	2	do	1	2	Do.
128	13 south....	8 west....	1	1	do	1	1	do	1	2	Do.
129	14 south....	8 west....	1	1	do	1	1	do	1	2	Do.
Total for the fiscal year ending June 30, 1878.			42	57		42	49		129	266	

FRD. SALOMON,
United States Surveyor General for Utah.

E.—Statement of work executed in the surveyor general's office of Utah for the fiscal year ending June 30, 1878.

Description.	Surveyor general's office.	General Land Office.	District land office.	Claimant.	Total.
Plats showing exterior lines of public surveys	13	13	25	.....	51
Plats showing exterior and subdivisional lines of public surveys	29	29	104	.....	162
Plats of mining claims and mill sites	115	.....	115	230	460
Plats of mining claims, amended surveys	2	2	2	2	8
Supplemental plats of mining claims, on surveyed land	3	3	3	.....	9
Map of Uintah mining district, showing the location of 19 mining claims and 5 mill sites, as surveyed for United States patent, up to date, and public surveys within the district	1	1	.....	.....	2
Total	163	47	249	232	692
Transcripts of original field notes of public surveys .....	.....	49	.....	.....	49
Descriptive lists .....	.....	.....	266	.....	266
Transcripts of original field notes of mining claims and mill sites .....	.....	.....	.....	115	115
Transcripts of amended field notes of mining claims .....	.....	.....	.....	2	2
Total .....	.....	49	266	117	432

FRD. SALOMON,
United States Surveyor General for Utah.

F.—Statement showing the number of linear miles run, the rate per mile, and the total cost of public surveys, as returned in Utah, for the fiscal year ending June 30, 1878.

Description.	Distance.	Rate per mile.	Amount.
	<i>M. chs. lks.</i>		
Meridian lines	9 33 50	\$10 00	\$94 19
Meridian lines, mountainous and timbered	6 00 00	13 00	78 00
Meridian lines, mountainous and timbered	6 41 50	16 00	104 29
Standard lines	27 61 15	10 00	277 64
Standard lines, mountainous and timbered	47 27 86	16 00	757 56
Township lines	81 03 18	7 00	567 28
Township lines	5 53 45	12 00	68 02
Township lines, mountainous and timbered	56 41 60	14 00	791 30
Section lines	493 19 06	6 00	2,959 42
Section lines, mountainous and timbered	236 56 04	10 00	2,366 99
Total	970 17 34	.....	8,064 69

FRD. SALOMON,
United States Surveyor General for Utah.

G.—Statement showing the number of acres of public lands surveyed in Utah Territory since the inception of surveys up to June 30, 1878.

Number of acres of public land surveyed up to June 30, 1877	7,918,883.65
Number of acres of public land returned during the fiscal year ending June 30, 1878	259,936.32
Total to June 30, 1878	8,178,819.97

FRD. SALOMON,
United States Surveyor General for Utah.

H.—Statement of special deposits made by individuals for the survey of public lands in Utah for the fiscal year ending June 30, 1878.

Date.	Depositor.	Survey.	Field work.	Office work.
1877. Aug. 13	F. J. Merrill	Townships 13 and 15 north, range 1 east	\$180 00	\$20 00
	D. Zundell	Township 13 north, ranges 1, 2, and 3 west	155 00	17 19
	J. Goodwin	Township 14 north, ranges 1 and 2 west, and township 15 north, ranges 1 and 3 west	180 00	20 00
	J. N. Beck	Township 13 north, ranges 1, 2, and 3 west	60 00	5 00
	C. Brown	Township 14 north, ranges 1 and 2 west, and township 15 north, ranges 1 and 3 west	180 00	20 00
	F. Miller	Townships 13 and 14 north, ranges 1 and 2 west	180 00	20 00
	J. Ramsbotham ..	Township 13 north, range 1 east, township 15 north, ranges 1 and 2 east	135 00	15 00
	R. McMurdie	Townships 9 and 10 north, ranges 1 east and 1 west	180 00	20 00
	G. Law	Townships 9 and 10 north, ranges 1 east and 1 west	180 00	20 00
	M. A. Walker	Townships 9 and 10 north, ranges 1 east and 1 west	180 00	20 00
	J. W. Lowe	Townships 9 and 10 north, ranges 1 east and 1 west, townships 7 and 8 north, range 2 west	147 00	16 00
	W. N. Thomas	Townships 9 and 10 north, ranges 1 east and 1 west, townships 7 and 8 north, range 2 west	180 00	20 00
	D. Benson	Townships 9 and 10 north, ranges 1 east and 1 west	180 00	20 00
	L. Laison	Townships 9 and 10 north, ranges 1 east and 1 west	180 00	20 00
	H. Curtis	Township 13 north, ranges 1 and 2 west, townships 9 and 10 north, ranges 1 east and 1 west	180 00	20 00
	T. E. Ricks, jr	Township 14 north, range 1 west, and township 13 north, ranges 1, 2, and 3 west	54 00	6 00
	E. Tibbetts	Township 14 north, range 1 west, and township 13 north, ranges 1, 2, and 3 west	180 00	20 00
	N. Mickelson	Townships 12, 13, and 15 north, range 1 east	180 00	20 00
	M. M. Hammond ..	Townships 7, 8, 9, 10, 11, 12, 13, 14, and 15 north, ranges 1 east and 1 west	180 00	20 00
	J. R. Allen	Townships 7, 8, 9, 10, 11, 12, 13, 14, and 15 north, ranges 1 east and 1 west	80 00	20 00
	T. A. Hillyard	Townships 7, 8, 9, 10, 11, 12, 13, 14, and 15 north, ranges 1 east and 1 west	14 64	10 36
	M. D. Hammond ..	Townships 12, 13, and 15 north, range 1 east	180 00	20 00
	M. R. Hammond ..	Township 14 north, range 1 west, townships 12, 13, and 15 north, ranges 1 east and 1 west	180 00	20 00
Dec. 10.	H. Crause	Township 30 south, range 12 west	175 00	25 00
	S. A. Shepherd	Township 28 south, range 13 west	175 00	25 00
	Total		1,938 64	246 36

FRD. SALOMON,
United States Surveyor General of Utah Territory.

I.—Statement showing mining claims surveyed, by whom surveyed, when approved, and amount of deposit for office work on each claim.

No. of lot.	Name of claim.	By whom surveyed.	When approved.	Amount of deposit.
<i>West Mountain district.</i>				
118	Clay's placer (resurvey)	F. Eastman	Mar. 26, 1878	\$30
131	Miners' Home	W. Bredemeyer	Unfinished.	30
151	Sunset	A. H. Browne	Sept. 19, 1877	35
152	Crescent lode	F. Eastman	Sept. 17, 1877	35
153	Sampson	do	Aug. 20, 1877	25
154	Ann Kempton	do	Sept. 7, 1877	25
156	Story	O. A. Palmer	Feb. 20, 1878	25
157	Last Chance	F. Eastman	Oct. 20, 1877	30
159	Webster	do	Feb. 15, 1878	35
160	Carbonate lode	F. Dickert	Unfinished.	25
161	Frisco lode	F. Eastman	Dec. 14, 1877	25
162	Saturn lode	do	Dec. 26, 1877	25
163	Little Treasure	do	Dec. 22, 1877	25
164	Highland lode	do	Feb. 23, 1878	25
165	St. Mark's lode	do	Jan. 30, 1878	25
166	Starless	do	May 9, 1878	25
167	First W. Ex. Telegraph lode	C. P. Brooks	June 11, 1878	25
168	Saratoga	E. B. Wilder	June 17, 1878	35
169	Bonny Blue Flag lode	F. Eastman	June 14, 1878	25
				530

I.—Statement showing mining claims surveyed, &c.—Continued.

No. of lot.	Name of claim.	By whom surveyed.	When approved.	Amount of deposit.
<i>Little Cottonwood district.</i>				
94	Cincinnati	O. A. Palmer	Nov. 6, 1877	\$30
95	South Star	do	June 26, 1878	25
96	Nabob	do	Sept. 18, 1877	30
97	West Wind	do	Oct. 29, 1877	30
98	Virginia	C. P. Brooks	Nov. 15, 1877	35
99	Upton	F. Dickert	Jan. 14, 1878	25
101	Cunningham lode No. 2	L. J. Holmes	Mar. 15, 1878	25
102	Nabob Extension	O. A. Palmer	Unfinished.	25
103	Oriental	do	Unfinished.	25
104	North Star	F. Dickert	Feb. 27, 1878	50
105	Fleetwood	O. A. Palmer	Unfinished.	25
106	Utah Central	do	Unfinished.	25
107	Centennial No. 1	do	May 22, 1878	25
108	Leontine	do	May 9, 1878	40
109	Josephine	do	May 3, 1878	35
110	Balance Tunnel lode	do	May 6, 1878	30
				480
<i>Big Cottonwood district.</i>				
67	Abbey	O. A. Palmer	Aug. 20, 1877	25
68	Christopher Columbus	do	Aug. 20, 1877	25
69	Oregon	do	Aug. 20, 1877	30
70	Taylor	do	Aug. 31, 1877	30
71	Black Bess	do	Aug. 31, 1877	40
72	Dolphin	E. B. Wilder	Sept. 27, 1877	30
73	Carioca	do	Oct. 12, 1877	30
74	Mammoth	do	Oct. 12, 1877	35
75	New York	do	Oct. 12, 1877	25
76	Minet Light	do	Oct. 12, 1877	35
77	Newport	do	Oct. 12, 1877	25
78	Oskaloosa	do	Oct. 12, 1877	40
79	Ralston	R. H. Browne	Unfinished.	25
80	Harkness	O. A. Palmer	Dec. 5, 1877	25
81	Carbonate	E. B. Wilder	Nov. 17, 1877	40
82	Union Pacific	William Bredemeyer	Nov. 24, 1877	25
83	Silver Mountain lode No. 2	E. B. Wilder	Dec. 8, 1877	25
84	Lone Pine	F. Dickert	Unfinished.	25
85	Little Giant	do	Jan. 15, 1878	45
86	June Bug	O. A. Palmer	Unfinished.	25
87	Home Ticket	do	Unfinished.	25
88	Defiance	do	Unfinished.	25
89	Provo lode	Jos. Gorlinski	Unfinished.	25
90	Bearson	E. B. Wilder	Feb. 21, 1878	25
92	Eclipse	C. P. Brooks	Feb. 4, 1878	40
93	Seventy-Six	L. J. Holmes	Unfinished.	25
94	Fourth of July	F. Dickert	Unfinished.	25
96	Last Chance No. 2	do	Jun. 18, 1878	25
97	Fair View	do	Jun. 20, 1878	25
98	Maxfield	do	Unfinished.	25
				870
<i>Ophir district.</i>				
79	Hidden Treasure (resurvey)	E. B. Wilder	Dec. 13, 1877	25
81	Sacramento (resurvey)	do	Dec. 13, 1877	40
113	Summit	do	Dec. 13, 1877	30
114	Cedar	do	Dec. 13, 1877	30
115	I. X. L.	W. Bredemeyer	Dec. 17, 1877	25
116	Grecian Bend	do	Jan. 30, 1878	35
117	Etna	do	Jan. 8, 1878	25
118	Thad. Stevens	M. T. Burgess	Jan. 30, 1878	40
119	Shoo Fly, E. and W.	do	Feb. 14, 1878	45
120	Ivanhoe	do	Unfinished.	50
121	American Flag No. 2	do	Unfinished.	50
123	Kearsarge	O. A. Palmer	Unfinished.	45
124	Jennie	do	Jun. 7, 1878	40
125	Ira	do	June 10, 1878	30
126	Azure Queen	do	May 31, 1878	25
				535
<i>American Fork district.</i>				
59	Meacoque	William Bredemeyer	July 7, 1877	35
60	Beleroophon	do	July 7, 1877	35
61	Austin	do	Nov. 22, 1877	25
				95
<i>Uintah district.</i>				
53	Little Mc	C. P. Brooks	Feb. 26, 1878	30
54	Epperson	do	Jan. 5, 1878	30

I.—Statement showing mining claims surveyed, &c.—Continued.

No. of lot.	Name of claim.	By whom surveyed.	When approved.	Amount of deposit.
55	Ontario Extension No. 1	O. A. Palmer	Jan. 30, 1878	\$45
56	Woodside	C. P. Brooks	Apr. 2, 1878	25
57	Whitford	O. A. Palmer	July 1, 1878	25
58	Kervin	do	Apr. 16, 1878	30
59	Whitford mill site	do	July 1, 1878	25
60	Last Chance No. 2	Jos. Gorlinski	Unfinished ..	25
61	Marsac	do	Unfinished ..	25
62	Quinn	do	Unfinished ..	25
63	Rosina	do	Unfinished ..	25
	<i>San Francisco district.</i>			310
40	Grampian Smelter site	N. E. Britt	July 9, 1877	25
	<i>Hot Springs district.</i>			
38	Henry	William Bredemeyer	Nov. 9, 1877	25
	<i>Harrisburg district.</i>			
39	Shepherd & Lemon	J. M. Macfarlane	Unfinished ..	25
40	Tecumseh	do	Sept. 4, 1877	30
41	Pride of the West	do	Aug. 24, 1877	30
42	Walker	do	Sept. 4, 1877	25
43	Barbee	do	Sept. 27, 1877	25
44	Leopard	A. H. Parker	Unfinished ..	30
45	Silver Flat	J. M. Macfarlane	Unfinished ..	35
46	McNally	F. Dickert	Dec. 1, 1877	30
47	Thompson	do	Dec. 3, 1877	30
48	Stormont	J. M. Macfarlane	Unfinished ..	25
49	Silver Point	do	Unfinished ..	30
50	Chloride Chief	do	Feb. 20, 1878	30
51	Silver Crown	do	Feb. 20, 1878	30
52	Maggie Lode & Co	do	Unfinished ..	35
53	Emily Jane	do	Unfinished ..	25
54	Buckeye	do	Unfinished ..	45
55	California	do	Unfinished ..	25
56	Storm King	A. H. Parker	Unfinished ..	35
	<i>Dugaway district.</i>			540
37	Virginia	F. Dickert	Apr. 4, 1878	25

FRD. SALOMON,
United States Surveyor General of Utah Territory.

J.—Statement showing condition of appropriation for incidental expenses for office of surveyor general of Utah Territory for fiscal year ending June 30, 1878.

Dr.			Cr.		
1877.					
Oct. 1	To amount paid on vouchers 1 to 11	\$213 20	By appropriation for the fiscal ending June 30, 1878.	\$1,500 00	
1	To amount paid C. Bird, messenger	50 00			
1	To amount paid W. Jennings, rent	150 00			
Oct. 17	To amount paid D. McClelland	52 00			
	Total for first fiscal quarter	465 20			
1878.					
Jan. 3	To amount paid on vouchers 1 to 11	185 00			
3	To amount paid C. Bird, messenger	50 00			
3	To amount paid W. Jennings, rent	150 00			
	Total for second fiscal quarter	385 00			
Mar. 31	To amount paid on vouchers 1 to 10	162 05			
31	To amount paid C. Bird, messenger	50 00			
31	To amount paid W. Jennings, rent	150 00			
	Total for third fiscal quarter	362 05			
July 2	To amount paid on vouchers 1 to 9	67 05			
2	To amount paid C. Bird, messenger	50 00			
2	To amount paid W. Jennings, rent	150 00			
2	To amount paid D. McClelland	20 00			
	Total for fourth fiscal quarter	287 05			
	To balance	70			
	Total	1,500 00			1,500 00

FRD. SALOMON,
Surveyor General of Utah Territory.

K.—Statement showing condition of appropriation for salaries of surveyor general of Utah Territory and clerks in his office for the fiscal year ending June 30, 1878.

Dr.			Cr.		
1877.					
Oct. 1	To Nathan Kimball, surveyor general	\$687 50	By appropriation for salary of surveyor general	\$2,750 00	
1	To C. H. Cranwell, chief clerk	450 00			
1	To J. H. Campe, draughtsman	311 20			
1878.			By appropriation for salary of clerks	3,000 00	
Jan. 3	To Nathan Kimball, surveyor general	687 50			
3	To C. H. Cranwell, chief clerk	450 00			
3	To J. H. Campe, draughtsman	248 60			
Mar. 21	To Nathan Kimball, surveyor general	611 12			
Apr. 1	To Frd. Salomon, surveyor general	76 38			
1	To C. H. Cranwell, chief clerk	450 00			
1	To J. H. Campe, draughtsman	258 40			
June 29	To Frd. Salomon, surveyor general	687 50			
29	To C. H. Cranwell, chief clerk	450 00			
29	To J. H. Campe, draughtsman	375 00			
	Total	5,743 20			
	Balance	6 80			
		5,750 00			5,750 00

FRD. SALOMON,
United States Surveyor General of Utah Territory.

L.—Statement showing condition of special deposits for office work in the office of the surveyor general of Utah Territory for the fiscal year ending June 30, 1878.

DR.			CR.		
1877.					
October 1	To W. I. Bowen, draughtsman	\$297 00	By amount deposited for office work on mineral surveys		\$3,435 00
1	To G. M. Roberts, clerk	264 00			
1	To J. A. Mitchell, clerk	168 00	By amount deposited for office work on agricultural surveys		246 36
1	To C. Dahlgren, assistant draughtsman	160 00			
1878.					
Jan. 3	To J. H. Campe, draughtsman	126 40	By amount drawn from special deposits remaining to the credit of this office from former years		378 14
3	To W. I. Bowen, draughtsman	355 50			
3	To A. Jessen, assistant draughtsman	312 00			
3	To J. A. Kimball, clerk	231 00			
March 21	To J. A. Kimball, clerk	143 50			
April 1	To W. I. Bowen, draughtsman	346 50			
1	To A. Jessen, assistant draughtsman	308 00			
1	To W. A. Gorlinski, clerk	140 00			
1	To J. A. Campe, draughtsman	116 60			
June 29	To W. I. Bowen, draughtsman	351 00			
29	To W. A. Gorlinski, clerk	312 00			
29	To E. H. Hesse, draughtsman	256 00			
29	To E. Buettner, clerk	120 00			
29	To A. Jessen, clerk	52 00			
	Total	4,059 50	Total		4,059 50

FRD. SALOMON,
United States Surveyor General for Utah Territory.

M.—Estimate of appropriation required for the surveying service in the Territory of Utah for the fiscal year ending June 30, 1880.

For salary of surveyor general	\$3,000
For salary of clerks	5,000
For rent, incidentals, &c	2,500
For continuing the lines of public surveys	50,000
For connecting mineral monuments	5,000
Total	65,000

ARREARS.

For preparation of maps and field notes of 29 mining districts, showing the relative position of each claim	\$2,000
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FRD. SALOMON,
United States Surveyor General of Utah Territory.

N.—Statement of condition of appropriation for surveys of public lands in Utah Territory for the fiscal year ending June 30, 1878.

DR.			CR.		
Jan. 15, 1878	To A. D. Ferron, contract No. 79 of August 27, 1877	\$1,241 27	By appropriation for public surveys in Utah Territory for the fiscal year ending June 30, 1878		\$16,050 00
Feb. 25, 1878	To J. H. Martineau, contract No. 80 of August 30, 1877	1,550 40			
Mar. 19, 1878	To A. D. Ferron, contract No. 79 of August 27, 1877	1,924 49			
Mar. 25, 1878	To A. J. Stewart, jr., contract No. 81 of September 26, 1877	637 25			
Aug. 1, 1878	To A. D. Ferron, contract No. 79 of August 27, 1877	3,708 34			
		9,061 75			
By balance					\$6,988 25
To deficit in A. D. Ferron's contract (returned to Treasury)					\$125 90
To J. H. Martineau's unfinished contract No. 80					4,949 60
To A. J. Stewart, jr.'s unfinished contract No. 81					1,912 75
					6,988 25

FRD. SALOMON,
United States Surveyor General of Utah Territory.

L.—Report of the surveyor general of Nevada.

UNITED STATES SURVEYOR GENERAL'S OFFICE,
Virginia City, Nev., September 3, 1878.

SIR: In compliance with your instructions of May 1, 1878, I have the honor to submit the following report in duplicate of the operations of this office during the fiscal year ending June 30, 1878, with accompanying statements relative to the surveying department:

A. Statement of account of appropriation for compensation of the United States surveyor general for Nevada, and employés in his office, during the fiscal year 1877-'78.

B No. 1. Statement of account of appropriation for surveys of public lands during the fiscal year 1877-'78.

B No. 2. Statement of account of appropriation for surveys of public lands during the fiscal year 1876-'77, balance.

C. Statement of account of appropriation for rent of office, fuel, books, stationery, and other incidental expenses, including pay of messenger, in the office of the United States surveyor general of Nevada during the fiscal year 1877-'78.

D. Statement of contracts entered into by the United States surveyor general, with the number of miles surveyed, during the fiscal year ending June 30, 1878.

E. List of public lands surveyed in the State of Nevada during the fiscal year 1877-'78.

F. Statement of special deposits with the subtreasurer of the United States for survey of the mineral claims in Nevada during the fiscal year 1877-'78.

G. List of mineral claims surveyed in the State of Nevada during the fiscal year 1877-'78.

H. Statement of plats made in the office of the United States surveyor-general during the fiscal year 1877-'78.

J. Statement for the surveying service in the State of Nevada for the fiscal year ending 1880.

The operations of the surveying service in this district have been confined entirely to the survey of agricultural, grazing, and timber lands. Twenty townships have been returned, embracing an area of 233,767.88 acres of agricultural, grazing, and timber lands, 958.03 acres of mineral land, 104,144.39 acres of unsurveyed and unfit for cultivation; total, 338,870.30 acres, together with 103 applications for patents to mineral claims, embracing an area of 1,281.98 acres. Owing to the lateness of the season in letting contracts, only partial returns of contracts (No. 78 of Messrs. Hatch, Barker and Eaton) have been received. Contracts 79, 80, and 81 are still in progress of surveying.

AGRICULTURE.

The only material change to note in the agricultural affairs of Nevada during the year is the increased efforts made to utilize the waters of the State for irrigating purposes. Canals have been prospected, and the work of their construction commenced, which will absorb the waters of the Truckee and Carson Rivers during the irrigating season and probably add 20,000 acres to the land under cultivation. A canal commenced from the Humboldt will supply an equally extensive tract of country; the building of the railroad to Esmeralda County will, in Mason Valley, cause the cultivation of as much new land as there is water in the Walker River to supply, and will cause the redemption of 20 or 25 square miles of the best land in the State. A project is on foot to tap the Owyhee River for water for a large extent of valuable land in Humboldt County. In our sage-brush lands alfalfa, the cereals, and all vegetables flourish in profusion where water can be obtained, and the State is swiftly becoming one of the great stock-raising States of the Union.

MINERAL.

My report of the mineral showing of Nevada must necessarily be very much a repetition of the report of last year. The great bonanzas will not produce the enormous yields of last year, partly because of needless repairs in the mines and partly, doubtless, because the cream of the vast deposit has been skimmed. But the prospect has greatly brightened in other mines of the Comstock, and before the close of the year other bonanzas will be uncovered. The same cheerful outlook applies to other counties. In Washoe, in the Pyramid district, one paying mine has been opened, and adjacent mines are being vigorously opened.

During the year a new district has been discovered in Humboldt County which is very valuable, and many old mines have been reopened and are paying well. Lander County is sustaining its old reputation as a bullion producer. The mines of Elko County will yield about the same as last year with a prospect of doing better in future. White Pine County has changed very little, but a rapid advance may be looked for soon both in Ward and Cherry Creek district. During the year past Lincoln County has added one great mine to its bullion producers. Eureka County has

greatly advanced during the past twelve months, and the great ore channel there is doubtless as permanent as the Comstock; the low prices of lead seriously affects the profits of mining in Eureka, but there is no abatement in the work. Nye County shows a marked advance over last year; the more the mines at Tybo are worked the more extensive the ore deposit becomes. At Belmont the outlook is full of encouragement, while in Western Nye, at Grantville and Downeyville, the mines are yielding heavily and giving every indication of permanency and wealth.

Esmeralda County is attracting marked attention; active work was resumed on the Aurora mines last winter, and the prospect there and at "Bodie," just over the State line, has justified the commencement of a railroad from here to that region; the road will be pushed forward with all possible dispatch. A new mine has been opened near the famous Northern Belle, which promises to fully equal that property in value.

In Lyon County the working of Comstock tailings is steadily pursued; from that county within the year the Sutro Tunnel has reached and penetrated the Comstock. It may not be out of place to add that though a little out of the State, the fabulous product of the "Bodie" mines is materially adding to the agricultural value of the counties in Nevada adjacent to it.

Gross yield of the mines of the State of Nevada for the fiscal year ending June 30, 1878.

Eureka, 125,934 tons of ore	\$5,984,326 44
Esmeralda, 16,334 tons of ore	667,552 89
For quarter ending June 30, no report.	
Elko, 15,607 tons of ore	1,472,180 43
Elko, 225 tons tailings worked	3,375 00
Humboldt, 17,270 tons	221,193 07
Quarter ending June 30, 1878, no report.	
Lander, 5,720 tons of ore	582,584 45
Lincoln, 29,643 tons of ore	631,830 68
Lyon, 90,294 tons tailings worked	609,632 63
Nye, 18,264 tons of ore	605,348 32
Nye, 377 tons tailings worked	6,713 43
Quarter ending June 30, 1878, no report.	
Storey, 508,536 tons of ore	34,967,307 34
Storey, 83,563 tons of tailings	811,040 43
White Pine, 11,861 tons of ore	660,188 14
<i>Total yield.</i>	
Ore extracted, 747,169 tons, value	45,792,511 76
Tailings worked, 184,459 tons, value	1,430,791 49
Grand total	47,223,303 25

STATE CONTROLLER'S OFFICE,
Carson, Nev., August 20, 1878.

I hereby certify that the foregoing is a true and correct statement of the yield of the mines of this State for the year commencing July 1, 1877, and ending June 30, 1878 (except for the counties of Nye, Humboldt, and Esmeralda, whose statements for the quarter ending June 30, 1878, have not been received), as compiled from the quarterly reports of the several county auditors filed in this office.

[SEAL.]

W. W. HOBART,
Controller of State.

I would beg leave to state that the appropriation for incidental account for this office is entirely insufficient to furnish the necessary supplies needed to run the office for the fiscal year ending June 30, 1879.

In the hope that this brief report will meet your approbation,

I am, very respectfully, your obedient servant,

E. S. DAVIS,
United States Surveyor General.

Hon. J. A. WILLIAMSON,
Commissioner of the General Land Office.

A.—Statement of account of appropriation for compensation of surveyor general and employes during fiscal year 1877-'78.

DR.		CR.	
To amount paid quarter ending September 30, 1877	\$1,450 00	By appropriation surveyor general. .	\$2,500 00
To amount paid quarter ending December 31, 1877	1,197 37	By appropriation clerical service....	3,000 00
To amount paid quarter ending March 31, 1878	1,450 00		
To amount paid quarter ending June 30, 1878	1,400 58		
Balance.....	2 05		
	5,500 00		5,500 00
		Balance July 1, 1878	2 05

B No. 1.—Statement of account of appropriation for surveys of public lands in Nevada during 1877-'78.

DR.		CR.	
To amount paid quarter ending March 31, 1878	\$678 71	By appropriation of March 3, 1877 ...	\$16,050 00
To amount transferred to General Land Office April 11, 1878	3,000 00		
Balance.....	12,371 29		
	16,050 00		16,050 00
		Balance July 1, 1878	12,371 29

B No. 2.—Statement of account of appropriation for surveys of public lands in Nevada during 1877-'78.

DR.		CR.	
To amount paid quarter ending September 30, 1877	\$1,100 86	By appropriation of July 31, 1876, "balance"	\$15,000 00
To amount paid quarter ending December 31, 1877	3,335 29		
To amount paid quarter ending March 31, 1878	29 22		
Balance.....	10,534 63		
	15,000 00		15,000 00
		Balance from appropriation of 1876-'77	10,534 63

C.—Statement of account of appropriation for rent of office, fuel, books, stationery, and pay of messenger, during 1877-'78.

DR.		CR.	
By amount paid quarter ending September 30, 1877	\$441 25	By appropriation	\$1,500 00
By amount paid quarter ending December 31, 1877	458 25		
By amount paid quarter ending March 31, 1878	515 25		
By amount paid quarter ending June 30, 1878	85 40		
	1,500 15		1,500 15
		Excess July 1, 1878	15

D.—Statement of contracts entered into by the United States surveyor general for Nevada, with the number of miles run during the fiscal year 1877 and 1878.

[illegible]

D.—Statement of contracts entered into by the United States surveyor general for Nevada, &c.—Continued.

Contracts. No.	Date.	Name of deputy.	Work embraced in contracts and returned to this office.	Contract amount.	Base.	Standard.	Township.	Section.	Returned amount.	Date of transmittal.	Remarks.
81	1878. May 30	E. L. Bridges	Run, measure, and mark all lines necessary to establish the exterior and subdivision lines of townships 1 and 2 north, range 32 east, and township 8 north, ranges 24 and 25 east, and the subdivision lines in township 9 north, ranges 24 and 25 east, Mount Diablo base and meridian.	\$2,500 00	<i>Ms. chs. lks.</i>	<i>Ms. chs. lks.</i>	<i>Ms. chs. lks.</i>	<i>Ms. chs. lks.</i>			Surveys in progress.
Total							2 00 00	110 62 88	\$678 71		

E.—List of the land surveyed in the State of Nevada during the fiscal year 1877 and 1878.

Townships.	Ranges.	Public lands.	Mineral lands.	Unsurveyed.	Total.
		<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>
9 north	22 east	5,386.55			5,386.55
10 north	22 east	21,136.40	958.03		22,094.43
9 north	23 east	5,218.46		16,019.39	21,237.85
10 north	23 east	14,265.88		8,640.00	22,905.88
11 north	23 east	13,122.48		9,912.40	23,034.88
1 south	34 east	8,595.05		14,376.68	22,971.73
1 south	35 east	22,949.32			22,949.32
1 south	36 east	19,725.36		3,200.00	22,925.36
2 south	34 east	4,955.78		12,045.32	17,001.08
2 south	35 east	22,987.11			22,987.11
2 south	36 east	4,747.76		18,208.56	22,956.32
3 south	35 east	12,186.68		1,121.12	13,307.80
26 north	31 east	8,157.55			8,157.55
27 north	31 east	4,344.44			4,344.44
26 north	32 east	11,185.59		11,838.56	23,024.15
27 north	32 east	5,748.48			5,748.48
28 north	31 east	14,239.60		8,782.38	23,021.98
1 north	31 east	5,223.66			5,223.66
2 north	31 east	22,203.20			22,203.20
2 north	30 east	7,388.53			7,388.53
Total		233,767.88	958.03	104,144.39	338,870.30

F.—List of special deposits with the sub-Treasurer of the United States for mineral claims in Nevada during the fiscal year 1877-78.

Number of survey.	Depositor.	Lode.	Deputy.	Amount.
131	Succor Milling and Mining Company.	White Lead	C. F. Hoffman	\$30
37	Combination Mining Company.	Combination	I. E. James	30
102	Manhattan Silver Mining Company.	Gleason	M. Curtis	30
103	J. S. Porteous	Wark	do	30
37	Falcon Silver Mining Company.	Falcon	C. C. Tracy	30
150	O. H. McKee	Comstock	A. Craven	30
37	Geo. G. Blair	Placer	W. N. McGill	30
122	W. H. Gray	Holly	T. J. Read	30
123	Emmett Consolidated	Charlestown	do	30
124	S. Cooper et al.	Eagle Nest	do	30
125	do	Grey Eagle	do	30
126	do	Black Eagle	do	30
41	Getteysburgh Mining Company.	Getteysburgh	Richard Gird	30
56	Martin White Mining Company.	Mill Site	W. N. McGill	30
127 A & B.	Albert Sturges	Metamoras	T. J. Read	30
128 A & B.	do	General Washington	do	30
129	do	Clyde	do	30
41	John Potter	Mill Site	do	30
38 & 42	Navajo Mining Company	Navajo	C. C. Tracy	30
38	Scorpion Silver Mining Company.	Scorpion	R. M. Catlin	30
151	H. W. Tangerman.	Frank	A. Craven	30
152	do	do	do	30
98	Mammoth Silver Mining Company.	Mammoth	T. J. Read	30
40	Grey Eagle Silver Mining Company.	Grey Eagle	do	30
53	Wm. Sewell et al.	Esmeralda	J. B. Hiskey	30
43	Pawnee Mining Company	Grand Prize	G. W. Garside	30
43	Canton Mining Company	Elijah	W. N. McGill	30
44	do	Isaacs	do	30
45	do	Blackstone	do	30
46	do	Minnie Manolah	do	30
47	do	Specific	do	30
48	do	Cummings	do	30
49	do	El Dorado	do	30
50	do	Carbonate	do	30

F.—List of special deposits with the sub-Treasurer of the United States, &c.—Continued.

Number of survey.	Depositor.	Lode.	Deputy.	Amount.
51	Canton Mining Company.	Yellowstone	W. N. McGill	\$30
41 A & B.	San José Mining Company.	Sarah	T. J. Read	30
41 A & B.	do	Columbus	do	30
42 A & B.	do	America	do	30
43 A & B.	do	Centennial	do	30
44 A & B.	do	Pine Tree	do	30
45 A & B.	do	Eastern	do	30
46 A & B.	do	San José	do	30
132	B. Jennings <i>et al</i>	South Saint Louis	A. Craven	30
133	A. Lanzac	Lanzac	do	30
44	Grand Prize West	Grand Prize West	R. M. Catlin	30
130	T. J. Schneider <i>et al</i>	Uncle Sam	T. J. Read	30
131	Silver West Consolidated	Silver West	do	30
37	P. A. Humbert	First Extension Clinton	A. J. Hatch	30
38	do	Steamboat	do	30
39	do	First Extension Steamboat	do	30
40	do	Nevada	do	30
41	do	First Extension Nevada	do	30
153	Indisputable Mining Company.	Lynch & O'Connor	A. Craven	30
134	John Walsh	Capital No. 2	do	30
45	Silver Prize	Buckeye	R. M. Catlin	30
39	J. M. & J. W. Beard	Modoc Quartz	do	30
99	W. F. Anderson	Second Extension Hidden Treasure.	T. J. Read	30
100	H. G. Blasdell	Argyle	do	30
37 A & B.	Alexander Mining Company	Great American Rooster	G. Earnst	30
101	Orig. Hidden Treasure	Hidden Treasure	T. J. Read	30
132	M. H. Joseph <i>et al</i>	Golden Rule	do	33
154	California Mining Company	Comstock	I. E. James	30
155	Consolidated Virginia Mining Company.	do	do	30
156	J. G. Schirlee	Schirlee	A. Craven	30
37	Day Silver Mining Company	Jack Rabbit	O. K. Wescoatt	30
102	E. M. Robinson <i>et al</i>	Baldy Sons	T. J. Read	30
41 A & B.	Tem Paluste Mining Company.	Cadwallader	do	30
42 A & B.	do	Dunbarton	do	30
43	do	Cliff Liberal	do	30
44	do	Prodigal	do	30
45	do	Sleeper	do	30
46	do	Tattler	do	30
47	do	Enterprise and Old Point Comfort.	do	30
48	do	Bond	do	30
49	do	Hope	do	30
50	do	Mint	do	30
51	do	Poorman	do	30
86	Hartford Mining Company	Hartford	C. F. Hoffman	30
133	Edward Altwagg	Brick Top	N. Wescoatt	30
134	J. C. Powell	Barton	T. J. Read	30
135	M. H. Joseph	Blue Bird	do	30
157	Garber Mining Company	Comstock	A. Craven	30
158	Thornton Mining Company	do	do	30
156	Thos. Weathered	Commit.	W. A. Edwards	30
159	F. M. Thayer	Missouri	A. Craven	30
160	do	Silver Leaf	do	30
140	J. C. Henderson	Sam. Tilden	O. K. Wescoatt	30
141	J. N. Curtis	Roadside	do	30
142	F. H. Knight	Summit	do	30
137	K. K. Consolidated	Mill Site	T. J. Read	30
138	do	do	do	30
140	P. O. Fifield	Colorado	do	30
141	K. K. Consolidated	Mill Site	do	30
46	Commonwealth Mining Company.	All Alone	C. C. Tracy	30
143	Phoenix Mining Company	Mill Site	T. J. Read	30
142	Silver West Consolidated	Excelsior Carlo Zeno	do	30
144	do	May Day Queen	do	30
144	do	Gas Light	do	30
52	Delaware Mining Company	Delaware	Gott Haist	30
38	J. C. Phillips	Richmond	G. Earnst	30
39	do	Boston	do	30
40	do	Zealous	do	30
41	do	Argonaut	do	30
				3,090

G.—List of mining claims surveyed in the State of Nevada during the fiscal year 1877-1878.

PUBLIC LANDS.

341

Number of survey.	Company.	Lode.	Mining district.	County.	Township.	Acres.	Date of approval.	Remarks.
131.....	Succor Milling and Mining Company.	White Lead	Gold Hill	Storey	Township 16 north, range 21 east..	15. 89	1877. July 13	Silver.
37.....	Combination Mining Company.	Combination	Black Mountain	Esmeralda ..	Unsurveyed	17. 56	July 14	Do.
102.....	Manhattan Silver Mining Company.	Gleason	Reese River	Lander	do	20. 66	July 20	Do.
103.....	J. S. Porteous	Wark	do	do	do	18. 70	July 20	Do.
37.....	Falcon Mining Company	Falcon	Rock Creek	Elko	do	20. 66	July 23	Do.
150.....	Allen Consolidated	Comstock	Virginia	Storey	Township 17 north, range 21 east..	14. 08	July 23	Do.
37.....	J. G. Blair	Placer	Osceola	White Pine ..	Unsurveyed	60. 00	Aug. 8	Gold placer mine.
122.....	W. H. Gray	Hoely	Eureka	Eureka	do	5. 61	Aug. 9	Silver.
123.....	Emmett Consolidated	Charlestown	do	do	do	2. 23	Aug. 10	Do.
124.....	S. Cooper <i>et al</i>	Eagle Nest	do	do	do	6. 89	Aug. 10	Do.
125.....	do	Grey Eagle	do	do	do	4. 30	Aug. 11	Do.
126.....	do	Black Eagle	do	do	do	4. 38	Aug. 13	Do.
41.....	Gettysburg Mining Company	Gettysburg	Colorado	Lincoln	do	13. 86	Aug. 13	Do.
56.....	Martin White Mining Company	Mill Site	Ward	White Pine ..	Township 14 north, range 63 east..	5. 00	Aug. 14	Mill site.
127 A & B.	Albert Sturges	Metamora	Eureka	Eureka	Unsurveyed	8. 44	Aug. 29	Silver.
128 A & B.	do	General Washington	do	do	do	7. 24	Aug. 30	Do.
129.....	do	Clyde	do	do	do	1. 41	Aug. 31	Do.
41.....	John Potter	Mill Site	Pinto	do	do	5. 00	Aug. 31	Mill site.
38 & 42..	Navajo Mining Company	Navajo	Tuscarora	Elko	Township 39 and 40 north, range 51 east.	20. 13	Sept. 8	Silver.
38.....	Scorpion Mining Company	Scorpion	Rock Creek	do	Unsurveyed	20. 66	Sept. 10	Do.
151.....	H. W. Tangonnau	Frank	Silver Star	Storey	Township 17 north, range 21 east..	14. 80	Sept. 21	Do.
152.....	do	do	do	do	do	17. 20	Sept. 21	Do.
98.....	Mammoth Silver Mining Company.	Mammoth	White Pine	White Pine ..	Unsurveyed	11. 53	Sept. 24	Do.
40.....	Grey Eagle	Grey Eagle	Cherry Creek	do	do	15. 60	Sept. 25	Do.
53.....	W. Sewell <i>et al</i>	Esmeralda	Esmeralda	Esmeralda ..	Township 5 north, range 28 east..	6. 89	Sept. 26	Do.
43.....	Pawnee Mining Company	Grand Prize	Tuscarora	White Pine ..	Unsurveyed	19. 80	Sept. 28	Do.
43.....	Canton Mining Company	Elijah	Robinson	do	do	6. 88	Oct. 1	Do.
44.....	do	Isaacs	do	do	do	6. 88	Oct. 1	Do.
45.....	do	Black Stone	do	do	do	6. 88	Oct. 12	Do.
46.....	do	Minnie Manolah	do	do	do	8. 26	Oct. 2	Do.
47.....	do	Specific	do	do	do	6. 30	Oct. 2	Do.
48.....	do	Cummings	do	do	do	6. 88	Oct. 3	Do.
49.....	do	El Dorado	do	do	do	6. 37	Oct. 3	Do.
50.....	do	Carbonate	do	do	do	5. 05	Oct. 4	Do.
51.....	do	Yellow Stone	do	do	do	6. 88	Oct. 12	Do.
41 A & B.	San José Mining Company	Sarah	Cherry Creek	do	do	22. 95	Oct. 5	Do.

G.—List of mining claims surveyed in the State of Nevada, &c.—Continued.

Number of survey.	Company.	Lode.	Mining district.	County.	Township.	Acres.	Date of approval.	Remarks.
41 A & B.	San José Mining Company.	Columbus	Cherry Creek	White Pine	Unsurveyed	18.60	1877.	Silver.
42 A & B.	do	America	do	do	do	18.77	Oct. 8	Do.
43 A & B.	do	Centennial	do	do	do	25.66	Oct. 9	Do.
44 A & B.	do	Pine Tree	do	do	do	15.33	Oct. 10	Do.
45 A & B.	do	Eastern	do	do	do	15.33	Oct. 11	Do.
46 A & B.	do	San José	do	do	do	1.58	Oct. 12	Do.
132.	B. Jennings et al.	South Saint Louis	Devil's Gate	Lyon	Township 16 north, range 21 east.	19.47	Oct. 15	Do.
133.	C. Lauzac.	Lauzac	Gold Hill	Storey	do	11.94	Oct. 20	Do.
44.	Grand Prize West	Grand Prize West	Tuscarora	Elko	Township 40 north, range 51 east.	6.97	Oct. 22	Do.
130.	T. J. Schneider et al.	Uncle Sam.	Eureka	Eureka	Unsurveyed	14.28	Nov. 8	Do.
131.	Silver West	Silver West	do	do	do	4.59	Nov. 9	Do.
37.	P. A. Humbert.	First Extension, Clinton	Steamboat	Washoe	Township 18 north, range 20 east.	20.66	Nov. 15	Quicksilver.
38.	do	Steamboat	do	do	do	20.66	Nov. 15	Do.
39.	do	First Extension, Steamboat.	do	do	do	20.66	Nov. 17	Do.
40.	do	Nevada	do	do	do	20.66	Nov. 19	Do.
41.	do	First Extension, Nevada.	do	do	do	20.66	Nov. 19	Do.
153.	Indisputable.	Lynch & O'Connor	Virginia	Storey	Township 17 north, range 21 east.	3.85	Nov. 15	Silver.
154.	John Walsh	Capital No. 2.	Gold Hill	do	Township 16 north, range 21 east.	20.66	Nov. 22	Do.
45.	Silver Prize.	Buckeye	Tuscarora	Elko	Township 40 north, range 51 east.	11.70	Nov. 26	Do.
39.	J. M. & J. W. Beard.	Modoc Quartz	do	do	Township 39 north, range 51 east.	20.54	Dec. 6	Do.
99.	W. F. Anderson.	Second Extension Hidden Treasure.	White Pine	White Pine	Unsurveyed	2.87	Dec. 17	Do.
100.	H. G. Blasdel.	Argyle	do	do	do	5.28	Dec. 17	Do.
37 A & B.	Alexander Milling and Mining Company.	Great American Rooster.	Union	Nye	do	25.66	Dec. 18	Do.
101.	Original Hidden Treasure	Hidden Treasure	White Pine	White Pine	do	4.12	1878.	Do.
132.	M. H. Joseph	Golden Rule	Eureka	Elko	do	6.81	Jan. 2	Do.
154.	California Mining Company	Comstock	Virginia	Storey	Township 17 north, range 21 east.	11.43	Jan. 4	Do.
155.	Consolidated Virginia Mining Company.	do	do	do	do	22.20	Jan. 7	Do.
156.	J. G. Schirlee	Schirlee	Flowery	do	do	20.65	Jan. 8	Do.
37.	Day Silver Mining Company.	Jack Rabbit	Jack Rabbit	do	Unsurveyed	20.41	Jan. 12	Do.
102.	E. M. Robinson et al.	Baldy Sour.	White Pine	Lincoln	do	20.66	Jan. 14	Do.
41 A & B.	Tem Pahute Mining Company.	Cadwallader	Tem Pahute	Lincoln	do	11.89	Feb. 14	Do.
42 A & B.	do	Dun Barton	do	do	do	11.89	Feb. 15	Do.
43.	do	Cliff Liberal	do	do	do	5.98	Feb. 15	Do.
44.	do	Prodigal	do	do	do	4.50	Feb. 16	Do.
45.	do	Sleeper	do	do	do	6.89	Feb. 16	Do.
46.	do	Tatler	do	do	do	5.80	Feb. 18	Do.
47.	do	Enterprise and O. P. C.	do	do	do	6.89	Feb. 18	Do.
48.	do	Bond	do	do	do	5.17	Feb. 18	Do.

No.	Owner	Locality	Quantity	Grade	Date
49	do	do	4.59	Do.	Feb. 19
50	do	do	4.59	Do.	Feb. 19
51	do	do	4.87	Do.	Feb. 20
86	Hartford Mining Company	do	15.21	Do.	Feb. 21
133	Edward Altwagg	do	6.89	Do.	Feb. 23
134	J. C. Powell	do	6.89	Do.	Feb. 25
135	M. H. Joseph	do	4.09	Do.	Feb. 25
157	Garber Mining Company	do	20.66	Do.	Mar. 13
158	Thornton Mining Company	do	12.45	Do.	Mar. 13
136	T. Wethered	do	4.59	Do.	Mar. 26
59	F. M. Thayer	do	20.59	Do.	Apr. 3
60	do	do	19.88	Do.	Apr. 4
40	J. C. Henderson	do	20.34	Do.	Apr. 17
41	J. N. Curtis	do	20.34	Do.	Apr. 17
42	F. H. Knight	do	20.34	Do.	Apr. 17
137	K. K. Consolidated	do	20.34	Do.	Apr. 17
138	do	do	5.00	Do.	Apr. 22
140	P. O. Field	do	5.00	Do.	Apr. 23
141	K. K. Consolidated	do	6.89	Silver	Apr. 24
46	Commonwealth Mining Com- pany	do	5.00	Mill site	Apr. 24
143	Phenix Silver Mining Comp'y.	do	15.42	Silver	May 3
139	K. K. Consolidated	do	5.00	Mill site	May 17
142	Silver West Mining Company	do	5.00	Do.	Apr. 23
144	do	do	5.40	Silver	Apr. 23
145	do	do	3.67	Do.	June 10
52	Delaware Mining Company	do	1.76	Do.	June 11
38	J. C. Phillips	do	16.53	Do.	June 12
39	do	do	20.66	Do.	June 28
40	do	do	16.42	Do.	June 28
41	do	do	17.89	Do.	June 29
	do	do	12.50	Do.	June 29
	Total area		1,281.98		

H.—*Statement of plats made in the office of the United States surveyor general for Nevada, for the fiscal year ending June 30, 1878.*

Description.	Original.	Department.	Register.	Post on claims.	Total.
Exterior township plats	4	3			7
Township plats	23	23	23		69
Township plats, California office	2				2
Maps of mining districts	8	28			36
Additions to State map	1	1			2
Sketches for deputies	5				5
Mineral claims	104	105	104	114	427
Total					548

I.—*Statement of estimates for the surveying service in the district of Nevada, for the fiscal year ending June 30, 1880.*

FOR SURVEYING.

For running 100 miles of standard and meridian lines	\$1,500 00
For running 1,200 miles of township lines	14,400 00
For running 3,000 miles of subdivision lines	30,000 00
Total for surveys	45,900 00

FOR SALARIES.

To compensation of surveyor general	\$3,000 00
To compensation of two clerks	3,500 00
To compensation of two draughtsmen	3,000 00
Total for salaries	9,500 00

INCIDENTAL EXPENSES.

For rent of office, salary of messengers, fuel, books, stationery, and other incidental expenses	\$3,920 00
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M.—*Report of the surveyor general of Arizona.*

UNITED STATES SURVEYOR GENERAL'S OFFICE,
Tucson, Ariz., August 19, 1878.

SIR: In compliance with General Land Office instructions of date May 1, 1878, I have the honor to submit herewith, in duplicate, my annual report of surveying operations within this district for the fiscal year ending June 30, 1878.

Tabular statements, in duplicate, showing extent and locality of surveys and also the expenditures of this office, accompany the report, as follows:

- A.—Statement of contracts for year ending June 30, 1878.
- B 1.—Statement of balance of apportionment for year ending June 30, 1877.
- B 2.—Statement of account of apportionment for year ending June 30, 1878.
- B 3.—Statement of account of apportionment for survey of confirmed private land claims.
- C.—Statement of account of appropriations for salary of surveyor general, of clerks in his office, and for incidental expenses.
- D.—Statement of account of individual deposits.
- E.—Statement of plats made.
- F.—Statement of miles surveyed.
- G.—Statement of mining and mill-site claims surveyed.
- H.—Statement of lands surveyed.
- I.—Estimates for year ending June 30, 1880.

PRIVATE LAND CLAIMS.

For reasons fully given in my annual report for 1877, I have not entered upon a formal investigation of private land claims. Congress has been asked repeatedly to appropriate the small sum required to open and conduct this investigation under existing law and your instructions, and its long delay has the appearance of a refusal to provide the means, at least under present legislation. Notwithstanding my decided opinion that the duty should be performed by a commission or the courts, I must again put it on record that I have been ready at all times to enter upon the work.

The continued influx of people for actual settlement and mining operations increases the urgency of adjusting all titles to private land claims. I will give just one pointed illustration: Hundreds of miners are now at work in the Santa Rita Mountains. Baca claim No. 3, authorized by section 6, act of June 21, 1860, is located in these mountains and covers land notoriously mineral. Notwithstanding the law authorizes the location of "vacant land not mineral" only, the fact that the location has been made and is not finally approved or disapproved enables certain men to cast a cloud upon mining titles in the Santa Rita Mountains and greatly retard mining progress.

An imperfect title, or one incapable of being perfected, is generally in the hands of those who apparently live to impede legitimate industry, or to extort money from the honest and useful of community, whereas one based on law, and capable of perfection, is usually found in possession of men who are just and reasonable, and who encourage enterprises calculated to enrich the country, and thereby enhance the value of their own property. The delay of Congress in making provision for the execution of the existing law on this subject, or in enacting a better one and giving means for its execution, operates in favor of obstructors and extortioners.

TIMBER INTERESTS.

Recent timber legislation is well received by the people. It relieves them of constant apprehension of prosecution for taking timber necessary for the existence of life and business. Authorizing, as it does, for local and free use of all alike, timber upon mineral lands, monopoly is avoided and the best public interest is promoted. If Congress will make early provision for and require the survey of all non-mineral timber-bearing land, the vexed timber question will be settled, or be in a condition which will make it easy of settlement with all offenders and to the approval of all good men.

SURVEY OF INDIAN RESERVATION.

The boundaries of the White Mountain and San Carlos Indian reservation ought to be officially established by a survey on the ground. The reserve originally included much mining land, now known as Copper Mountain and Globe mining districts. It was originally established without proper care and without knowledge of the locality and true name of points designated for its boundary. It has been reduced four times, twice to exclude mineral land unnecessary to the Indians, and twice to exclude agricultural lands upon which some settlements were made prior to its establishment. Some of the more important points intended to mark the present boundary are so indefinite as to cause honest and intelligent men to differ as to their location or as to the name of them. Already, Globe district miners and the Indian agent at San Carlos are disputing over the boundary in a manner which is likely to involve serious difficulty and much expense. The flourishing and extensive mining districts of Globe and Copper Mountain hug the west and east boundaries respectively, and the large and rapidly increasing agricultural settlements of Pueblo Viejo and the Little Colorado likewise press upon the south and north lines; and none of the boundary being established on the ground, the best-informed men are likely to err in judgment as to its precise location for much the greater part. Looking at the matter from a government standpoint alone, it would be economy to, at the earliest possible day, establish the boundary on the ground by an official survey.

GRAZING LANDS.

It is unfortunate that these lands are entirely excluded by law from survey. Congress surely intends, and sound public policy requires, that land occupied by *bona fide* settlers should be surveyed and be made available for pre-emption and sale. No argument is needed to show the necessity of stock growing. Arizona is largely adapted to this industry. In most instances stock raisers put more extensive improvements on their land claims than farmers need to do. To merely call attention to these facts would seem sufficient to induce Congress to authorize the survey of grazing land actually occupied. Such an authorization might effectually prohibit the survey of grazing land prior to actual occupation.

GENERAL PROGRESS.

The Territory has made rapid progress within the past twelve months. The outlook is highly encouraging and, in some localities, exciting. The farmer and stock raiser

have, generally, made satisfactory progress, especially in the matters of growing better varieties and enlarging their business. Fruits are becoming comparatively plentiful and cheap. Insects have not damaged the crops and, with slight exceptions, diseases have not destroyed animals. Mining products are rapidly increasing, and at no time in the Territory's history has there been such activity displayed in mining operations. Labor is not in excess of the demand and is fairly remunerated. Beggarly or thieving tramps and idlers are only things of hearsay in Arizona.

Very respectfully, your obedient servant,

JOHN WASSON,
Surveyor General.

Hon. J. A. WILLIAMSON,
Commissioner General Land Office.

A.—Statement of contracts entered into by the United States surveyor general of Arizona with deputy surveyors for the survey of public lands in Arizona during the fiscal year ending June 30, 1878, and payable out of the apportionment to Arizona for that year.

Name of deputy surveyor.	Date of contract.	Description of work.	Meridian.	Amount of contract.	Amount returned.	Amount audited.
Theodore F. White and John L. Harris.	July 17, 1877	Survey settled lands along Aravaypa Creek and the Gila and San Pedro Rivers near their junction.	Gila and Salt Rivers ...	\$5,000 00	\$5,071 57	\$5,000 00
Theodore F. White and John L. Harris.	Sept. 20, 1877	Survey agricultural lands along the Gila River	do	3,850 00	3,913 24	3,850 00

B 1.—Statement of balance of apportionment June 30, 1877, for the survey of public lands in Arizona during the fiscal year ending June 30, 1877.

Date of account.	In favor of—	Date of contract.	Amount.	Date.	On account of—	Amount.
Jan. 16, 1878	C. Burton Foster	Oct. 17, 1876	\$3,987 55	June 30, 1877	Balance of apportionment for survey of public lands in Arizona during fiscal year ending June 30, 1877	\$4,009 89
Jan. 16, 1878	Balance		22 34			
			4,009 89			4,009 89
				Jan. 16, 1878	Unexpended balance	22 34

B2.—Statement of account of apportionment for surveys of public lands in Arizona during the fiscal year ending June 30, 1878.

Date of account.	In favor of—	Date of contract.	Amount.	Date.	On account of—	Amount.
Mar. 5, 1878	Theodore F. White and John L. Harris.....	July 17, 1877	\$5,000 00	June 29, 1877	Apportionment for survey of public lands in Arizona during fiscal year ending June 30, 1878.....	\$8,850 00
Apr. 3, 1878	Theodore F. White and John L. Harris.....	Sept. 20, 1877	3,850 00			8,850 00
			8,850 00			

B3.—Statement of account of apportionment for survey of confirmed private land claims in Arizona during the fiscal year ending June 30, 1878.

Date of account.	In favor of—	Date of contract.	Amount.	Date.	On account of—	Amount.
Nov. 27, 1877	Reduction of apportionment by Commissioner General Land Office.....		\$2,000 00	June 29, 1877	Apportionment for survey of confirmed private land claims during fiscal year ending June 30, 1878 (unavailable).....	\$5,000 00
June 30, 1878	Unexpended balance.....		3,000 00			5,000 00
			5,000 00		Unexpended balance	3,000 00

C.—Statement of the account of the appropriations for the salary of the surveyor general of Arizona, for clerks in his office, and for incidental expenses, for the fiscal year ending June 30, 1878.

DR.			CR.		
Date.	Account.	Amount.	Date.	Appropriation.	Amount.
June 30, 1878	To amount paid John Wasson for services as surveyor general for year ending this date..	\$2,750 00	Mar. 3, 1877	By appropriation for compensation of the surveyor general of Arizona.....	\$2,750 00
June 30, 1878	To amount paid clerk and draughtsman for year ending this date..	3,000 00	Mar. 3, 1877	By appropriation for compensation of clerks in surveyor general's office, Arizona.....	3,000 00
June 30, 1878	To amount of incidental expenses for year ending this date.....	1,397 55	Mar. 3, 1877	By appropriation for incidental expenses of surveyor general's office, Arizona.....	1,500 00
June 30, 1878	To balance of appropriation for incidental expenses	102 45			
		7,250 00			7,250 00
			June 30, 1878	Unexpended balance....	102 45

D.—Statement of account of fund created by individual depositors for the survey of public lands in Arizona during the fiscal year ending June 30, 1878.

DR.			CR.		
Date.	Account.	Amount.	Date.	Account.	Amount.
June 30, 1878	To amount paid mining clerk and draughtsman during fiscal year ending this date	\$518 50	June 30, 1877	By balance of fund on hand.....	\$1,158 10
June 30, 1878	To balance on hand to credit of fund.....	1,401 30	June 30, 1878	By amount of deposits made during fiscal year ending this date.....	761 70
		1,919 80			1,919 80
				Unexpended balance	1,401 30

E.—Statement of plats made in the surveyor general's office, Arizona, during the fiscal year ending June 30, 1878.

Description.	Original.	Department.	Register.	Claimants.	Totals.
Plats of standard and township lines.....	4	4	.....	.....	8
Plats of section lines	37	37	37	.....	111
Plats of mining and mill-site claims.....	13	.....	13	26	52
Totals	54	41	50	26	171

F.—Statement of number of miles surveyed in Arizona during fiscal year ending June 30, 1878.

Name of deputy surveyor.	Date of con- tract.	Base.	Meridian.	Standard.	Township.	Section.	Traverse.	Meander.	Reservation exterior.	Private land claims.
C. Burton Foster.....	Oct. 11, 1876	<i>M. chs. lks.</i>	<i>M. chs. lks.</i>	<i>M. chs. lks.</i>	<i>M. chs. lks.</i>	<i>M. chs. lks.</i>	<i>M. chs. lks.</i>	<i>M. chs. lks.</i>	<i>M. chs. lks.</i>	<i>M. chs. lks.</i>
Theodore F. White and John L. Harris.....	July 17, 1877	.....	.....	.....	90 27 70	558 71 68	.....	.....	.....	.....
Theodore F. White and John L. Harris.....	Sept. 20, 1877	.....	.....	24 00 00	168 78 11	601 22 54	.....	6 27 65	.....	.....
.....	.....	.....	.....	.....	123 67 87	503 03 20	.....	.....	.....	.....
Total.....	.....	.....	.....	24 00 00	383 13 68	1,663 17 42	.....	6 27 65	.....	.....
Surveyed previous to June 30, 1877.....	.....	55 78 53	57 48 15	796 44 50	3,389 58 16	9,975 21 84	19 77 60	152 13 44	203 38 48	49 68 89
Total surveyed to June 30, 1878.....	.....	55 78 53	57 48 15	820 44 50	3,772 71 84	11,638 39 26	19 77 60	158 13 44	203 38 48	49 68 89

G.—Statement of the surveys of mining and mill-site claims in Arizona during the fiscal year ending June 30, 1878.

Date of sur- vey.	Designation of claim.	Location.	Character.	Claimants.	Area in acres.	Amount of deposit.
July 7, 1877	Longfellow.....	Yavapai County.....	Copper.....	Henry Lesinsky.....	18.69	\$40 00
Sept. 27, 1877	Stonewall Jackson.....	Pinal County.....	Silver.....	McMillen Silver Mining Company.....	20.00	40 00
Sept. 27, 1877	Little Mc.....	do.....	do.....	do.....	13.47	40 00
Jan. 28-29, 1878	Congress.....	Mohave County.....	do.....	T. H. Blythe <i>et al.</i>	20.66	40 00
Nov. 30, 1877	Green Mountain.....	Pinal County.....	Copper.....	Haskin Mining Company.....	17.61	40 00
Nov. 30, 1877	Green Mountain mill site.....	do.....	Non-mineral.....	do.....	3.89	40 00
Nov. 30, 1877	Cadmus.....	do.....	Copper.....	do.....	20.64	40 00
Nov. 30, 1877	Cadmus mill site.....	do.....	Non-mineral.....	do.....	4.17	40 00
Jan. 4-5, 1878	Cupel.....	Mohave County.....	Silver and lead.....	Spruance & Stanley.....	9.63	40 00
Dec. 18, 1877	McCleoud.....	Yavapai County.....	Gold and silver.....	Pine Flat Mining Company.....	18.59	40 00
Dec. 29, 1877	Tiger mill site.....	do.....	Non-mineral.....	J. H. Helm.....	5.00	40 00
Dec. 29, 1877	First and second south extension Tiger mill site.....	do.....	do.....	Hugo Richards.....	5.00	40 00
April 28, 1878	Agua Fria mill site.....	do.....	do.....	Levi Bashford.....	5.00	40 00

H.—List of lands surveyed in Arizona during the fiscal year ending June 30, 1878.

Description.	Meridian.	Public lands.	River lands.	Unsurveyed lands.
Township 18 north, range 2 west	Gila and Salt River	10, 851. 24		12, 189. 00
Township 18 north, range 3 west	do	23, 003. 87		
Township 19 north, range 3 west	do	10, 523. 66		12, 517. 00
Township 15 north, range 4 west	do	9, 552. 32		19, 194. 00
Township 19 north, range 4 west	do	22, 937. 24		
Township 20 north, range 4 west	do	11, 394. 88		11, 646. 00
Township 11 north, range 6 west	do	6, 849. 37		16, 191. 00
Township 13 north, range 6 west	do	6, 240. 00		16, 800. 00
Township 11 north, range 7 west	do	9, 263. 56		13, 777. 00
Township 13 north, range 2 east	do	15, 524. 24		7, 520. 00
Township 15 north, range 3 east	do	6, 399. 06		16, 640. 94
Township 16 north, range 3 east	do	16, 000. 00		7, 040. 00
Township 14 north, range 4 east	do	7, 087. 63		15, 953. 00
Township 15 north, range 4 east	do	18, 348. 07		4, 640. 00
Township 16 north, range 4 east	do	14, 181. 64		8, 859. 00
Township 14 north, range 5 east	do	4, 802. 42		18, 237. 58
Township 15 north, range 5 east	do	3, 520. 00		19, 520. 00
Township 5 south, range 14 east	do	23, 024. 54		
Township 5 south, range 15 east	do	19, 629. 80		3, 410. 20
Township 5 south, range 16 east	do	21, 870. 25		1, 169. 75
Township 6 south, range 16 east	do	23, 009. 99		
Township 6 south, range 19 east	do	9, 120. 00		13, 920. 00
Township 7 south, range 16 east	do	23, 006. 90		
Township 7 south, range 20 east	do	14, 073. 71		8, 960. 00
Township 8 south, range 16 east	do	23, 024. 15		
Township 8 south, range 17 east	do	23, 031. 07		
Township 8 south, range 21 east	do	23, 010. 33		
Township 9 south, range 17 east	do	23, 039. 01		
Township 7 south, range 17 west	do	22, 961. 16		
Township 7 south, range 18 west	do	11, 653. 08		11, 306. 00
Township 8 south, range 16 west	do	22, 986. 96		
Township 8 south, range 17 west	do	22, 986. 99		
Township 8 south, range 18 west	do	21, 237. 69		1, 760. 00
Township 9 south, range 16 west	do	23, 008. 65		
Township 9 south, range 17 west	do	22, 366. 99		640. 00
Township 9 south, range 18 west	do	23, 005. 71		
Total		615, 494. 38		241, 890. 47
Amount previously returned		3, 872, 478. 36	1, 906. 89	472, 901. 53
Amount of mining claims and mill sites surveyed		1, 229. 57		
Grand total of land surveyed in Arizona		4, 489, 202. 31	1, 906. 89	714, 792. 00

I.—Estimates for the surveying service in Arizona for the fiscal year ending June 30, 1880.

UNITED STATES SURVEYOR GENERAL'S OFFICE,
Tucson, Ariz., June 21, 1878.

SIR: In accordance with your circular, E, of date May 1, 1878, I herewith respectfully submit estimates for the surveying service in this district for the fiscal year ending June 30, 1880, viz:

For survey of agricultural and timber lands	\$15, 000 00
For incidental expenses of office	1, 500 00
For salary of surveyor-general	2, 750 00
For clerks in his office	3, 500 00

Total for ordinary services..... 22, 750 00

FOR PRIVATE LAND CLAIM SERVICE.

To enable this office to execute duties imposed by proviso to appropriation act of July 15, 1870, as per instructions, regarding examination of titles to private land claims, viz:

For safe, record and other books and necessities	\$2, 000 00
For clerk versed in English and Spanish languages	2, 500 00

Total for private land claims 4, 500 00

Referring to these estimates, I would respectfully represent:

Ten of the fifteen thousand dollars for the survey of public lands is regarded necessary for the survey of timber lands, to the end that citizens may procure necessary timber by purchase, and that the best interests of the government be easy of protection. When timber land can, as now provided by law, be purchased without actual residence in most undesirable mountain fastnesses, local public sentiment will approve strict enforcement of the law. Five thousand dollars (\$5,000) is the lowest amount that will meet the urgent demand of settlers for survey of agricultural lands.

The amounts estimated for execution of the law and instructions regarding private land claims ought to be appropriated. In the event that Congress should relieve this office of the duty now imposed upon it, as I still think it should do, then not a dollar appropriated in this behalf would be used.

There are no arrears of office work to report—that is, no work now undone which can properly be classed as in arrears.

Very respectfully, your obedient servant,

JOHN WASSON,
Surveyor General.

N.—*Report of the Surveyor General of Washington Territory.*

SURVEYOR GENERAL'S OFFICE, WASHINGTON TERRITORY,
Olympia, August 24, 1878.

SIR: I have the honor to transmit herewith, in duplicate, a report of the surveying operations in this district for the fiscal year ending June 30, 1878.

Accompanying and forming a part of this report are the following tabular statements, viz:

A. Statement showing the condition of contracts not closed at date of last annual report.

B. Statement of contracts let for the survey of public lands in Washington Territory; the number of miles and acres in each township; the number of plats made, and the amount paid on contracts for the fiscal year ending June 30, 1878.

C. Statement of special deposits for the survey of public lands in Washington Territory for the fiscal year ending June 30, 1878.

D. Statement of appropriation for incidental expenses of office of surveyor general of Washington Territory for the fiscal year ending June 30, 1878.

E. Statement of appropriation for salary of surveyor general of Washington Territory and clerks in his office for the fiscal year ending June 30, 1878.

F. Estimated amount required for the surveying service in Washington Territory for the fiscal year ending June 30, 1880.

I also transmit herewith the annual map, showing the progress of surveys in Washington Territory to this date, and the changes in several county boundary lines.

APPROPRIATIONS FOR SURVEYS.

As heretofore, I would most respectfully call the attention of your department to the unwise policy pursued by Congress for the last three years in reducing the appropriations for public surveys so that the expenses necessary to execute the surveys bore so large a ratio to the appropriations made for that purpose. For the purpose of placing this more clearly before all whom it may concern, I beg leave to submit the following statement, taken from the records of this office since 1873, viz: Amount expended for surveys for the fiscal year ending June 30, 1873, \$62,935, at an expense for office work and contingencies of \$11,605, or nearly 18½ cents for expending \$1; for the fiscal year ending June 30, 1874, expended for surveys, \$69,641, at an expense of \$12,447, or about 17½ cents for expending \$1; for the fiscal year ending June 30, 1875, expended for surveys, \$63,850, at an expense of \$9,900, or about 15½ cents for expending \$1; for the fiscal year ending June 30, 1876, expended for surveys, \$38,449, at an expense of \$9,800, about 25½ cents for expending \$1; for the fiscal year ending June 30, 1877, expended for surveys, \$11,032, at an expense of \$9,000, about 81½ cents for expending \$1; for the fiscal year ending June 30, 1878, expended for surveys, \$26,630, at an expense of \$8,350, nearly 31½ cents for expending \$1.

By comparing the fiscal years ending June 30, 1874 and 1877, which may be taken as the two extremes, it needs no argument to establish the fact that small appropriations for public surveys is, to say the least, very doubtful economy, and clearly proves that the fault of the present system, which has been charged as an expensive one, does not attach so much to the system as to those who have control of its financial affairs.

GROWTH AND PROSPERITY OF THIS TERRITORY.

Since my last annual report the agricultural growth of this Territory is unparalleled by any other year of its history. The extensive and inexhaustible wheat lands of Eastern Washington are being rapidly and successfully developed.

The county assessor's returns from Walla Walla and Columbia Counties are all I have at hand at present. These show that in 1877 Walla Walla County had 28,625 acres of wheat, which yielded an average of 30 bushels per acre. This year the acreage is 46,580, and although the yield will be less per acre than last year, owing to the extreme drought, yet it will exceed 1,000,000 bushels. Columbia County this year has 28,337 acres in wheat, and 10,445 acres in other crops. Whitman County has a wheat-producing area equal to both the above-named counties, and has also a large area sown this year, but I am not in possession at this time of the exact amount. The increased acreage of crops in other counties show equally well according to the increase of population.

RAILROADS.

There are now over 200 miles of completed railroads in operation in this Territory, viz: The Northern Pacific Railroad from Kalama, on the Columbia River, to Tacoma, on Puget Sound, 105 miles; the Puyallup Railroad, from New Tacoma to the Puyallup coal mines, 30 miles; the Cascades Railroad, connecting the navigable waters of the Columbia River above and below the cascades, 6 miles; and the following 3-foot narrow gauge railroads: The Seattle and Walla Walla Railroad from Seattle southeast, 20 miles; Olympia and Tenino Railroad, from Olympia to Tenino, connecting with the Northern Pacific Railroad at Tenino, 15 miles; and the Walla Walla and Columbia River Railroad, from Wallula, on the Columbia River, to Walla Walla, 30 miles; all of which are doing a successful business.

The Walla Walla and Columbia River Railroad last year transported over its line of the agricultural products of Walla Walla and a portion of Columbia Counties 26,339 tons, and of return freight over 8,000 tons, consisting of merchandise, agricultural implements, &c.

The Seattle and Walla Walla Railroad has been transporting 800 tons of coal daily, besides its other local business.

IMMIGRATION.

For the last two years, notwithstanding a disastrous Indian war has raged on our borders, immigration has rapidly poured into the Territory. Every steamer passing up the Columbia and Snake Rivers carried up hundreds of settlers in search of homes. The overland travel was suddenly interrupted this summer by the Indian war in Eastern Oregon and Southern Idaho, and thousands of immigrants have been either delayed in their destination or turned in other directions, yet under all these adverse circumstances, the population has more than doubled in several counties within the last year.

COAL.

Extensive and valuable deposits of coal are frequently discovered in various portions of Western Washington, sufficient to supply the whole Pacific Coast for all future time. As the market here for coal is limited at present, many of the newly discovered mines develop slowly; but with a railroad across the Cascade Mountains, connecting us with Eastern Washington, an extensive market would at once be opened for this desirable and cheap fuel in the sparsely timbered agricultural districts of that country.

TIMBER LANDS.

The passage of the recent act by Congress, providing for the sale of 160 acres of timber to each qualified purchaser, will prove of inestimable value to the farmers in Eastern Washington, where timber is generally located in the mountainous districts and remote from their homes.

Heretofore but little call was made for the survey of these lands, for the reason that as soon as surveyed they were taken up by transient land speculators, under the pre-emption act, and held at such high figures that the average farmer could not afford to purchase them, and when unsurveyed, necessity forced nearly all to become depredators on the public lands.

Very respectfully, your obedient servant,

W. McMICKEN,

Surveyor General of Washington Territory.

Hon. J. A. WILLIAMSON,

Commissioner General Land Office, Washington, D. C.

A.—Statement showing the condition of contracts not closed at date of last annual report.

Contract.	Name of deputy.	Character and location of work.	Number of miles surveyed.					Acres.	Number of plats made.				Amount paid on contracts.	Remarks.
			Standard.	Township.	Section.	Meander.	Total.		Original.	General Land Office.	Register.	Total.		
222	1876. Sept. 30	Truax & Briggs .. Subdivisions and meanders township 13 north, range 43 east. Subdivisions and meanders township 14 north, range 41 east. Subdivisions and meanders township 14 north, range 42 east. Subdivisions and meanders township 14 north, range 43 east.	M. C. L.	M. C. L.	M. C. L.	M. C. L.	M. C. L.	22,434.44	1	1	1	3	\$1,744 85	Completed.
			.....	.....	60 18 40	10 52 66	70 71 06	22,235.04	1	1	1	3		
			.....	.....	60 35 60	13 61 25	74 16 85	22,096.29	1	1	1	3		
			.....	.....	60 03 23	13 51 25	73 54 48	22,498.07	1	1	1	3		
			.....	.....	60 56 07	11 26 19	72 02 26	21,011.12	1	1	1	3		
223	Oct. 5	Edwin Richardson North fractional west boundary and subdivisions township 6 north, range 14 east.		8 34 50	55 56 92		64 11 42	21,713.66	1	1	1	3	1,394 75	Do.
			.....	11 79 30	58 48 24	13 07 90	83 55 44	22,085.94	1	1	1	3		
			.....	12 00 00	59 02 98	8 37 50	79 40 48	22,431.05	1	1	1	3		
227	1877. Jan. 27	Truax & Briggs .. South boundary and subdivisions west half township 12 north, range 44 east. North boundary subdivisions and meanders township 13 north, range 33 east. North boundary and subdivisions township 14 north, range 33 east. North boundary and subdivisions township 15 north, range 33 east.		5 77 60	44 55 12		50 52 72	15,809.49	1	1	1	3	1,394 75	Do.
			.....	5 64 20	59 06 72	0 52 90	65 43 82	22,066.59	1	1	1	3		
			.....	5 56 40	58 45 77	.....	64 22 17	21,879.54	1	1	1	3		
			.....	5 57 10	58 30 74	.....	64 07 84	22,178.77	1	1	1	3		
			.....	11 77 10	58 07 56	9 74 92	80 59 58	22,041.78	1	1	1	3		

	11 74 00	59 44 89	0 44 41	72 03 30	22, 772. 44	1	1	1	3	
North and west boundary subdivisions and meanders township 14 north, range 34 east.	11 74 00	59 44 89	0 44 41	72 03 30	22, 772. 44	1	1	1	3	
North and west boundary and subdivisions township 15 north, range 34 east.	11 73 50	59 39 04	.....	71 32 54	22, 695. 23	1	1	1	3	
West boundary and subdivisions township 16 north, range 34 east.	6 10 75	59 49 16	.....	65 59 91	22, 762. 80	1	1	1	3	
North and west boundary subdivisions and meanders township 13 north, range 35 east.	11 76 70	59 19 61	14 22 54	85 38 85	21, 853. 69	1	1	1	3	
North and west boundary and subdivisions township 14 north, range 35 east.	11 73 52	59 41 27	.....	71 34 79	22, 754. 38	1	1	1	3	8, 742 17
North and west boundary and subdivisions township 15 north, range 35 east.	11 75 00	59 37 65	.....	71 32 65	22, 708. 62	1	1	1	3	
West boundary and subdivisions township 16 north, range 35 east.	6 02 64	60 14 31	.....	66 16 95	22, 912. 85	1	1	1	3	
North and west boundary subdivisions and meanders township 13 north, range 36 east.	11 77 10	59 48 78	13 29 60	84 75 48	22, 070. 23	1	1	1	3	
West boundary and subdivisions township 14 north, range 36 east.	6 00 00	60 12 82	.....	66 12 82	23, 263. 42	1	1	1	3	
North southwest boundary and subdivisions township 15 north, range 36 east.	17 71 18	59 37 09	.....	77 28 27	22, 687. 11	1	1	1	3	
West boundary and subdivisions township 16 north, range 36 east.	6 13 67	60 26 25	.....	66 39 92	23, 154. 91	1	1	1	3	
Southeast west boundary and subdivisions township 8 north, range 44 east.	18 02 74	60 23 55	.....	78 26 29	23, 151. 38	1	1	1	3	
Subdivisions east half township 9 north, range 44 east.	.....	33 06 42	.....	33 06 42	11, 523. 38	1	1	1	3	
South and east boundary and subdivisions township 8 north, range 45 east.	12 02 50	60 12 22	.....	72 14 72	23, 048. 79	1	1	1	3	
Subdivisions township 9 north, range 45 east.	.....	60 18 97	.....	60 18 97	23, 105. 92	1	1	1	3	
Subdivisions township 17 north, range 21 east.	.....	59 70 19	.....	59 70 19	22, 972. 89	1	1	1	3	
North and east boundary and subdivisions township 18 north, range 21 east.	11 76 85	59 69 43	.....	71 66 28	22, 953. 78	1	1	1	3	
North and east boundary and subdivisions township 19 north, range 21 east.	11 76 50	59 60 14	.....	71 56 64	22, 875. 65	1	1	1	3	2, 131 18

Statement showing the condition of contracts not closed at date of last annual report—Continued.

Contract.	Name of deputy.	Character and location of work.	Number of miles surveyed.					Acres.	Number of plats made.				Amount paid on con- tracts.	Remarks.
			Standard.	Township.	Section.	Meander.	Total.		Original.	General Land Office.	Register.	Total.		
229	June 14	Charles A. White.	M. C. L.	M. C. L.	M. C. L.	M. C. L.	M. C. L.	22, 975. 11	1	1	1	3	\$120 00	Completed.
			.....	11 79 35	59 74 64	.....	71 73 99							
			.....	12 01 10	59 68 56	.....	71 69 66	22, 918. 86	1	1	1	3		
			12 00 00	.....	.....	.....	12 00 00	.....	1	1	.....	2		
			12 00 00	259 33 30	1, 923 28 88	109 61 12	2, 304 43 30	825, 643. 22	34	34	33	101		
			Total number of miles run											14, 132 95
			Total number of acres surveyed.....											
			Total number of plats made.....											
			Total amount paid on contracts.....											

Exhibit No. 1.

Balance of the appropriation for the fiscal year ending June 30, 1877.....	\$14,527 40
Amount paid on contracts as above.....	14,132 95
Balance unexpended	394 45

W. McMICKEN,
Surveyor General of Washington Territory.

SURVEYOR GENERAL'S OFFICE,
Olympia, Wash. T., August 24, 1878.

B.—Statement of contracts let for the survey of public lands in Washington Territory, the
on contracts for the fiscal

Contract.		Name of deputy.	Character and location of work.	Number of miles surveyed.	
Number.	Date.			Standard.	Township.
230	1877. July 14	Ross P. Shoecraft.	Resurvey of seventh standard parallel north through range 6 east and north and east boundary, subdivisions and meanders township 29 north, range 6 east.	M. C. L. 5 00 00	M. C. L. 12 00 75
231	July 30	Lewis Van Vleet..	Subdivisions township 22 north, range 32 east. Subdivisions township 22 north, range 33 east. Subdivisions township 22 north, range 34 east. Subdivisions township 22 north, range 35 east. Subdivisions township 22 north, range 36 east. North and west boundary and subdivisions township 23 north, range 36 east. North and west boundary and subdivisions township 23 north, range 37 east. West boundary and subdivisions township 24 north, range 37 east. West boundary and subdivisions township 24 north, range 38 east. Subdivisions township 23 north, range 38 east. Subdivisions township 23 north, range 39 east. North boundary and subdivisions township 22 north, range 40 east. West boundary, subdivisions and meanders township 23 north, range 40 east.	.....	.....
232	Aug. 1	Snow & Navarre..	North and east boundary and subdivisions township 17 north, range 22 east. South boundary and subdivisions township 15 north, range 22 east. South boundary and subdivisions township 16 north, range 22 east.	.....	11 79 67 12 02 00 6 27 05 6 28 18
233	Aug. 2	Dudley S. B. Henry	North and east boundary and subdivisions township 13 north, range 7 west. North and east boundary and subdivisions township 14 north, range 7 west.	.....	12 04 37 12 06 26
234	Aug. 4	William Jameson.	Fractional south boundary, subdivisions and meanders fractional township 27 north, range 2 west.	.....	2 30 00
235	Sept. 1	Truax & Briggs...	North and east boundary and subdivisions township 23 north, range 44 east. North and east boundary and subdivisions township 21 north, range 45 east. North and east boundary and subdivisions township 22 north, range 45 east. North and east boundary and subdivisions township 23 north, range 45 east. North boundary and subdivisions township 21 north, range 46 east. North boundary and subdivisions township 22 north, range 46 east. North boundary and subdivisions township 23 north, range 46 east. Subdivisions and meanders township 11 north, range 44 east. Subdivisions and meanders township 11 north, range 45 east. Sixth standard parallel north, through ranges 44, 45, and 46 east. East boundary, fractional south boundary and subdivisions fractional township 9 north, range 39 east. South and east boundary and subdivisions township 9 north, range 40 east. East and west boundary and subdivisions township 24 north, range 44 east. North and east boundary and subdivisions township 25 north, range 44 east. North and west boundary and subdivisions township 26 north, range 44 east.	.....	12 02 40 11 78 00 11 77 30 11 77 56 22 30 22 33 22 46

number of miles and acres in each township, the number of plats made, and the amount paid year ending June 30, 1878.

[illegible]

B.—Statement of contracts let for the survey of

Contract.		Name of deputy.	Character and location of work.	Number of miles surveyed.	
Number.	Date.			Standard.	Township.
235	1877. Sept. 1	Truax & Briggs...	East boundary and subdivisions township 24 north, range 45 east.	M. C. L.	M. C. L.
			North and east boundary and subdivisions township 25 north, range 45 east.		
236	Oct. 30	William Jameson	Subdivisions township 24 north, range 46 east.		
			North, south, and east boundaries, subdivisions and meanders township 35 north, range 5 east.		17 74 00
	*Oct. 23	Henry N. Stearns	Line between sections 1 and 12, township 14 north, range 2 west.		
237	Nov. 14	Jas. Tilton Sheets	Waldron Island.—Subdivisions and meanders township 37 north, range 2 west.		
			Waldron Island.—Exteriors, subdivisions, and meanders, township 37 north, range 3 west.		4 41 00
	1878. *Feb. 12	William Jameson	Subdivisions fractional township 25 north, range 3 west.		
	*Mar. 12	Truax & Briggs...	Subdivisions and meanders fractional township 13 north, range 44 east.		
	*May 18	Jas. Tilton Sheets	Meanders of an island in township 36 north, range 4 west.		
238	June 27	Sewall Truax	Subdivisions and meanders township 13 north, ranges 38 and 39 east.		
Totals				5 00 00	170 35 16
Totals brought forward from Statement A.....				12 00 00	259 33 39
Total number of miles run.....				17 00 00	429 68 46
Total number of acres surveyed.....					
Number of township plats made.....					
Number of miscellaneous township, donation plats, &c., made.....					
Total number of plats and tracings made					
Amount paid on contracts					

* Special instructions.

public lands in Washington Territory, &c.—Continued.

Number of miles surveyed.			Acres.	Plats made.				Amount paid on contracts.	Remarks.
Section.	Meander.	Total.		Original.	General Land Office.	Register.	Total.		
<i>M. C. L.</i>	<i>M. C. L.</i>	<i>M. C. L.</i>							
.....	.....	.....	.....	.....	.....	.....	.....	.....	Notes in office being platted and transcribed.
.....	.....	.....	.....	.....	.....	.....	.....	.....	Do.
.....	.....	.....	.....	.....	.....	.....	.....	.....	Do.
59 71 27	29 44 65	107 29 92	22, 015. 98	1	1	1	3	.....	Completed; special deposit.
1 00 44	.....	1 00 44	.....	1	1	1	3	\$10 05	Completed.
0 22 50	2 38 73	2 61 23	126. 90	1	1	1	3	} 247 27	Do.
6 76 74	8 53 92	20 11 66	2, 809. 18	1	1	1	3		
4 60 20	.....	4 60 20	1, 680. 00	1	1	1	3	.....	Completed; special deposit.
.....	.....	.....	.....	.....	.....	.....	.....	.....	Estimated liability, \$48.00.
.....	0 47 61	0 47 61	0. 60	1	1	1	3	.....	Incomplete.
.....	.....	.....	.....	.....	.....	.....	.....	.....	Completed; special deposit.
.....	.....	.....	.....	.....	.....	.....	.....	.....	Incomplete.
1, 505 46 20	74 58 27	1, 755 59 63	573, 027. 71	33	33	33	99	.....	
1, 923 28 88	109 61 12	2, 304 43 30	825, 643. 22	34	34	33	101	.....	
3, 428 75 08	184 39 39	4, 060 22 93	.....	.....	.....	.....	.....	.....	
.....	.....	.....	1, 398, 670. 93	.....	.....	.....	.....	.....	
.....	.....	.....	.....	67	67	66	200	.....	
.....	.....	.....	.....	.....	8	18	26	.....	
.....	.....	.....	.....	67	75	84	226	.....	
.....	.....	.....	.....	.....	.....	.....	.....	10, 938 17	

Exhibit No. 1.

Amount of appropriation for the fiscal year ending June 30, 1878	\$16, 050 00
Amount paid on contracts as above	10, 938 17
Balance applicable to unfinished contracts	5, 111 83

SURVEYOR GENERAL'S OFFICE,
Olympia, Wash., August 24, 1878.

W. McMICKEN,
Surveyor General of Washington Territory.

C.—Statement of special deposits for the survey of public lands in Washington Territory for the fiscal year ending June 30, 1878.

Date of deposit.	Name of depositor.	Amount deposited.		
		For field work.	For office work.	Total.
Aug. 3, 1877	Charles Rogers.....	\$342 86	\$57 14	\$400 00
	Thomas Dagnin.....	171 43	28 57	200 00
	James Haradon.....	85 71	14 29	100 00
Oct. 27, 1877	John Walker.....	164 58	21 42	186 00
	Charles S. Stuart.....	164 58	21 42	186 00
	John Nelson.....	164 58	21 42	186 00
	Arnt Erickson.....	164 58	21 42	186 00
	Clement W. Brown.....	164 58	21 42	186 00
	Franklin Smith.....	164 58	21 42	186 00
	James Kelly.....	164 58	21 42	186 00
Feb. 8, 1878	James E. Doe.....	47 50	32 50	80 00
May 17, 1878	William H. Cushman.....	12 00	8 00	20 00
	Total.....	1,811 56	290 44	2,102 00

Exhibit No. 1.

Contract.		Name of deputy.	Cost of survey.		Excess of deposit over cost of survey.	Total amount deposited.	Remarks.
No.	Date.		Field work.	Office work.			
234	Aug. 4, 1877	William Jameson.....	\$413 57	\$100 00	\$186 43	\$700 00	Completed.
236	Oct. 3, 1877	do.....	1,145 44	149 94	6 62	1,302 00	Do.
*	Feb. 12, 1878	do.....	47 50	32 50	.....	80 00	Do.
*	May 18, 1878	James Tilton Sheets.....	3 57	8 00	8 43	20 00	Do.
		Total.....	1,610 08	290 44	201 48	2,102 00	

* Special instructions.

SURVEYOR GENERAL'S OFFICE,
Olympia, Wash., August 24, 1878.

W. McMICKEN,
Surveyor General of Washington Territory.

D.—Statement of appropriation for incidental expenses of office of surveyor general of Washington Territory for fiscal year ending June 30, 1878.

Date.	Account.	Amount.	Date.	Appropriation.	Amount.
1878. June 30.	Amount of accounts forwarded for incidental expenses for the fiscal year ending this date.....	\$1,500 00	1877. Mar. 3	Amount of appropriation for the fiscal year ending June 30, 1878.....	\$1,500 00

SURVEYOR GENERAL'S OFFICE,
Olympia, Wash., August 24, 1878.

W. McMICKEN,
Surveyor General of Washington Territory.

E.—Statement of the appropriation for salary of the surveyor general of Washington Territory, and clerks in his office, for the fiscal year ending June 30, 1878.

Date.	Account.	Amount.	Date.	Appropriation.	Amount.
1878. June 30	Amount paid surveyor general, and clerks in his office, for the fiscal year ending this date.....	\$6,500 00	1877 March 3	Appropriation for salary of surveyor general, and clerks in his office, for the fiscal year ending June 30, 1878 ..	\$6,500 00
Mar. 30	Amount paid special clerks from special deposit fund..	226 00	1878. June 30	Unexpended balance of special deposits per last annual report.....	122 44
July 1	Amount paid special clerk from special deposit fund..	124 00		Special deposits for office work during the year ending June 30, 1878.....	290 44
	Unexpended balance, special deposits	62 88			
		6,912 88			6,912 88

W. McMICKEN,
Surveyor General of Washington Territory.

SURVEYOR GENERAL'S OFFICE,
Olympia, Wash., August 24, 1878.

F.—Estimated amount required for the surveying service in Washington Territory for the fiscal year ending June 30, 1880.

FOR FIELD WORK.

For surveying 30 miles of standard lines, at \$16.....	\$480
For surveying 110 miles of standard lines, at \$12.....	1,320
For surveying 528 miles of township lines, at \$14.....	7,392
For surveying 820 miles of township lines, at \$10.....	8,200
For surveying 3,750 miles of section lines, at \$12.....	45,000
For surveying 5,940 miles of section lines, at \$8.....	47,520
	<u>\$109,912</u>

FOR OFFICE WORK.

For salary of surveyor-general	\$2,500
For salary of chief clerk	1,600
For salary of chief draughtsman.....	1,500
For salary of assistant draughtsman	1,300
For salary of three copying-clerks.....	3,600
For rent of office, fuel, lights, pay of messenger, and other incidental expenses	2,000
	<u>12,500</u>

Total estimate..... 122,412

W. McMICKEN,
Surveyor General, Washington Territory.

SURVEYOR GENERAL'S OFFICE,
Olympia, Wash., August 24, 1878.

O.—Report of the surveyor general of Oregon.

OFFICE UNITED STATES SURVEYOR GENERAL,
Portland, Oreg., August 4, 1878.

SIR: I have the honor to submit, in duplicate, my annual report of this surveying district for the year ending June 30, 1878, accompanied by tabular statements, as follows:

A. Statement showing the condition of contracts not closed at date of last annual report.

B. Statement of surveying contracts made under the appropriation for the fiscal year ending June 30, 1878.

C. Statement of surveying contracts made under special deposits for year ending June 30, 1878.

D. Statement of original plats of surveys and copies transmitted since June 30, 1877.

E. Statement of original plats of surveys of mining claims and copies transmitted since June 30, 1877.

F. Statement of appropriation and expenditures for surveyor general, and clerks in his office, for the year ending June 30, 1878.

G. Statement of special deposits made to the credit of the United States for survey of public lands during the year ending June 30, 1878.

H. Statement of appropriation and expenditures for incidental purposes in the office of surveyor general for the year ending June 30, 1878.

I. Estimate of funds required for the surveying service in the district of Oregon for the year ending June 30, 1880.

Pursuant to appointment I relieved Mr. Benjamin Simpson, surveyor general, and receipted to him for the property pertaining to this office, on the 1st day of July, 1878.

The surveys contracted for by my predecessor, under the appropriation and the special deposit system, for the survey of the public lands in Oregon for the fiscal year ending June 30, 1878, have been completed, and the field notes returned to this office, examined and approved, and the contracts closed, with the exception of a few "special" surveys, which will doubtless be completed and the result forwarded to you for approval in reasonable time.

The public surveys of the last fiscal year embrace an aggregate area of 544,647 acres, and, so far as I am enabled to judge, were distributed in a manner most likely to meet the immediate wants of settlers to that extent possible with the very limited appropriation.

In compliance with your instructions, bearing date of August 22, 1877, lines have been protracted across swamps and marshes, where clearly shown to be such, upon the maps and other evidences in this office, embracing an aggregate area of 20,364.72 acres.

Having assumed control of the office immediately following the close of the last fiscal year, it cannot be expected of me to add much in explanation of the work of the last year to that contained in the several tabular statements herewith submitted, and to which you are respectfully referred. They are as carefully prepared as a limited knowledge of the records of the office would permit, having followed the precedents furnished me by previous reports as far as tabulation could be made in accordance therewith.

But little remains for me to add to my predecessor's very elaborate report upon the climate and resources of this State further than to reaffirm the facts as therein stated, as Oregon by her rapidly growing commercial and industrial pursuits is already establishing a reputation for herself in all the marts of the world. Her resources are being developed with an energy and to an extent that, with the fostering care of the General Government to an extent equal to that afforded her sister States, and to which she is certainly entitled, will soon place her in the front rank of prosperous communities.

During the last fiscal year the emigration to Oregon has been by far greater than that of any previous year. It has been of a more permanent and beneficial character, also, than has generally resulted from the migrations of former years. By the most reliable information which I have been enabled to obtain, I feel justified in placing the number locating in Oregon during the past year at 2,500 per month. The great majority of these people have come among us to find homes, and mainly seek locations upon the public domain. To do so many of them are compelled to push out upon the frontiers, upon the foot-hills and uplands of the numerous mountain ranges and spurs traversing the State in various directions and surrounding the settlement in the valleys. Very many of them have gone beyond the limits of present surveys and others are rapidly following. This must in the future continue to be the result of our present experience.

Until within the past few years it was customary only to locate upon the open valley or bottom lands. The reasons for this are apparent; but in addition to these was a general supposition that no other lands were fit for agricultural purposes. But the experiments of the past few years have fully demonstrated this to have been a radical error, and now the most eagerly sought tracts are those formerly avoided. The high table lands, the heavily-timbered regions of the bottoms and the foot-hills, and the rich vine-maple tracts scattered throughout the State from one end to the other, are found to be fully as valuable for general agriculture, and for some purposes far superior, to the locations of the original settlements, and it is to these tracts the emigration now mainly turns its attention.

But a comparatively small portion of these lands have been surveyed, and it is of them the greater demand comes for survey, and particularly the "special-deposit" work, where practicable. The deposit system is as yet little understood by settlers, but I am confident it will in time become a very popular method. Occupied mainly by the poorer classes, the surveys will necessarily be done by small contracts, and will almost always extend the public surveys in consecutive form. To facilitate this method I deem it of real necessity that the standard parallels and exteriors mentioned in my estimate should be established as far, at least, as settlements shall demonstrate the necessity. They will serve the double purpose of identifying the location and character of the lands asked to be surveyed, and will, in a great measure, avoid the trespassing upon timber lands so much complained of, by enabling persons who may wish to enter them to have the same surveyed by special deposit, in such legal subdivisions as they may desire. And I may add, should it be desirable so to do, that it will much sooner close up the *necessary surveys* under the annual appropriation plan.

There are already numerous petitions from settlers, awaiting action in this office, asking for the survey of townships and fractions thereof, whereon settlers are now lo-

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cated, in some instances claiming residence of ten or more years, without having their lands surveyed. The appropriation of the present fiscal year, as far as I can obtain evidence of necessity, shall be distributed among this class.

The lateness of the season will preclude the execution of much that ought to have been done this season; but such work as will be contracted for can, I feel confident, be fully completed by the time my next annual report will be required. The dilatoriness and parsimony of Congress work yearly to the disadvantage of the service in this district.

In speaking of "timbered lands" and "augmented rates," it will not, I trust, be out of place here to mention that in this country, particularly in the mountainous districts, there are many thousands of acres of lands which are much more difficult and expensive to survey than such as are ordinarily classed as "mountainous" and "heavily timbered." They are known as "brush lands," and are among the best qualities of lands when cleared and put in cultivation. Miles upon miles of them—in some cases almost entire townships—are overgrown with a dense *chaparral*, consisting of "buck brush," "live oak," "pin oak," "white thorn," and "sal lal," of great density and height, and so nearly impenetrable as to prevent the passage of beasts altogether and require large extra force of axmen to accomplish their survey. They are generally avoided, as far as possible, by deputies, and their survey should be contracted for at augmented rates when known to me to be such, though not classable as either "heavily timbered" or "mountainous," according to law. They generally, however, contain more or less timber and are frequently encountered on the mountains.

The estimates submitted do not embrace those tracts known strictly as "timbered lands," the survey of which Congress has provided for strictly as such, and upon which depredations are most generally committed.

The foregoing remarks are made mainly in support of my estimate of July 6; and upon a more careful and minute examination of the maps and petitions in this office, added to an extensive personal knowledge of localities and wants, I am fully confirmed of the general correctness of that estimate. Particularly am I convinced with reference to the establishment of standard and exterior lines. It calls for the survey of 334 miles of standard and 1,524 miles of exterior line surveys, at an aggregate maximum cost of \$26,680. As a considerable portion of this would be payable at minimum rates only, the actual cost would fall short of that sum—would probably not be much, if any, in excess of \$18,000. Their establishment would enable much of the subdividing to be hereafter done upon the special deposit plan. Such only need be subdivided each year, on account of the appropriation, as the demands of settlers and the public service would be made known. To fully complete the subdivisional surveys called for, estimated upon the same basis as the other lines, would involve the running of about 7,900 miles at a cost of \$60,000, or a total cost of about \$80,000. All this work, I am satisfied, will need to be done within the next two fiscal years. The experience of the past few years forms a basis for calculation altogether beyond conjecture.

A more particular examination of the records in this office has confirmed me in the belief of the necessity of the employment, for a season at least, of greater clerical aid. Several hundred separate packages of field notes of the surveys of donation claims (original notes) burden the shelves, and by constant handling for reference are gradually being worn out and defaced. In their present condition, this result is unavoidable. They contain all the evidence of surveys of large tracts of land which are constantly being divided up and the titles transferred by the different owners; and being written upon scraps and sheets or books of poor paper, and with poor ink, this constant handling will in a few more years render a large number of them illegible. They should be copied into durable books having proper indexes, and the originals filed away. To preserve them is certainly the duty of this office, but that cannot be done by copying so long as the clerical force is maintained at the present standard.

To a certain extent is the same condition of the field notes of all the public surveys under my charge, and they are rapidly increasing in number and bulk. The labor of transcribing, in the manner indicated, all the originals in this office would require an expert copyist's undivided attention for at least one year. The cost of the necessary stationery and other expenses, exclusive of clerk hire, would not exceed, I think, \$500. The task of transcribing the notes of the public surveys was begun by former surveyors general, but was necessarily abandoned by them, as I am informed, so long ago as 1862. When once brought up to any certain date, in complete form, the future labor and expense of keeping them recorded as fast as they may be received would be nominal. It is really to be hoped that Congress can be made to see and appreciate this necessity of the public service. I am aware that this matter has been brought to their attention before, but the necessity is none the less apparent thereby, and I have deemed it my duty, as the temporary guardian of the public archives in this district, to add my request to those of my predecessors *pro bono publico*.

In this report I have deemed it unnecessary to allude to anything not strictly connected with, and of apparent interest to, the surveying interests of this district, and shall conclude by subscribing myself,

Very respectfully, your obedient servant,

JAMES C. TOLMAN,
Surveyor General, Oregon.

No.	Surveyor	Date	Description	18 00 44	37 58 63	8 10 29	59 68 43	59 74 33	809 51 75	14,906.46	1 1 1	1 1 1	1 1 1	1 1 1	3	Do.
255	H. C. Perkins.....	Sept. 12	Exterior lines of township 30 south, range 36 east.	18 00 44	37 58 63	8 10 29	59 68 43	59 74 33	809 51 75	14,906.46	1	1	1	1	3	Do.
			Subdivisional lines of township 26 south, range 33 east.													Do.
			Meander lines of township 26 south, range 33 east.													Do.
			Subdivisional lines of township 27 south, range 33 east.													Do.
			Subdivisional lines of township 29 south, range 33 east.													Do.
			Exterior lines of township 27 south, range 23 east.	18 02 00												Do.
			Exterior lines of township 26 south, range 23 east.	6 00 70												Do.
			Exterior lines of township 27 south, range 22 east.	18 00 90												Do.
			Exterior lines of township 26 south, range 22 east.	6 01 75												Do.
			Exterior lines of township 27 south, range 21 east.	15 02 10												Do.
			Exterior lines of township 26 south, range 21 east.	6 03 00												Do.
			Intersections on standard parallel	10 90												Do.
			Subdivisional lines of township 26 south, range 21 east.		60 33 39					23,159.14	1	1	1	1	3	Do.
			Subdivisional lines of township 27 south, range 23 east.		60 12 91					23,107.24	1	1	1	1	3	Do.
			Subdivisional lines of township 27 south, range 22 east.		60 08 36					23,085.13	1	1	1	1	3	Do.
			Subdivisional lines of township 27 south, range 21 east.		60 07 54					23,072.61	1	1	1	1	3	Do.
			Subdivisional lines of township 26 south, range 22 east.		60 20 54					23,097.30	1	1	1	1	3	Do.
			Fifth standard parallel south	24 00 00					397 24 16							Do.
256	William H. Byars.	Sept. 15	Subdivisional lines of township 10 south, range 10 west.		20 18 18											Do.
257	James A. Warner.	Sept. 23	Meander line of township 10 south, range 11 west.		4 12 33											Do.
			Subdivisional lines of township 10 south, range 11 west.		24 71 71				49 14 22	8,676.73	1	1	1	1	3	Do.
258	W. T. Webber.....	Oct. 2	The fractional subdivisional lines of township 12 south, range 11 west.	1 00 00	11 00 40				12 00 40	3,361.81	1	1	1	1	3	Do.
259	John W. Meldrum.	Dec. 15	Subdivisional lines of township 29 south, range 30 east.		57 79 83					23,042.67	1	1	1	1	3	Do.
			Subdivisional lines of township 30 south, range 35 east.		60 41 85					22,969.92	1	1	1	1	3	Do.
			Subdivisional lines of township 30 south, range 39 east.		60 02 10					23,057.21	1	1	1	1	3	Do.
			Subdivisional lines of township 26 south, range 32 east.		20 60 77					5,063.65	1	1	1	1	3	Do.

A.—Statement showing condition of contracts not closed at date of last annual report—Continued.

Number.	Name of deputy.	Date.	Location and description of lines.	Number of miles surveyed.				Acres.	Original.	Commissioner General Land Office.	Register.	Total.	Amount paid on contracts.	Remarks.
				Extérieurs.	Standard parallels.	Sections and meanders.	Totals.							
259	John W. Meldrum.	Dec. 15	Subdivisional lines of township 30 south, range 34 east.	M. C. L.	M. C. L.	M. C. L.	M. C. L.	23, 049. 56	1	1	1	3	.....	Completed.
			Subdivisional lines of township 30 south, range 33 east.	.....	.....	60 02 84	.....	23, 047. 28	1	1	1	3	.....	
			Subdivisional lines of township 27 south, range 32 east.	.....	.....	61 31 74	382 56 90	22, 358. 93	1	1	1	3	\$2, 296 26	
			Totals	231 76 94	24 00 00	1, 391 20 76	.....	.....	.....	.....	.....	.....	.....	
			Total number of miles surveyed .....	.....	.....	.....	1, 646 17 70	.....	.....	.....	.....	.....	.....	
			Total number of acres surveyed .....	.....	.....	.....	.....	521, 530. 36	.....	.....	.....	.....	.....	
			Total number of maps made .....	.....	.....	.....	.....	.....	28	28	26	82	.....	
			Total amount paid on contracts .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10, 303 63	

SURVEYOR GENERAL'S OFFICE,
Portland, Oreg., August 3, 1878.

JAMES C. TOLMAN,
Surveyor General of Oregon.

B.—Statement of surveying contracts made under appropriation for fiscal year ending June 30, 1878.

No. contract.	Date.	Name of deputy.	Location and description of lines.	Amount surveyed.			Estimated amount of contract.	Amount re-turned.	Remarks.
				Standard.	Exteriors.	Subdivis-ions.			
260	Apr. 17	William Thiel	The fractional exterior and subdivis-ional lines of township 20 south, ranges 9 and 10 west, and the fractional subdivis-ional lines of township 21 south, range 9 west.	M. C. L.	M. C. L. 4 00 00	M. C. L. 12 76 07	\$204 00	\$177 50	Field-notes returned but not platted.
265	July 17	H. C. Perkins	The fifth standard parallel south, from the corner of townships 25 and 26 south, ranges 18 and 19 east; west through ranges 18, 17, 16, 15, 14, 13, 12, and 11 east to corner to townships 25 and 26 south, ranges 10 and 11 east; the exterior boundaries of township 25 south, range 15 east, and the subdivis-ional lines of township 26 south, range 23 east, Willamette meridian, Oregon.	48 63 84	59 30 65	337 44 67	3, 336 00	3, 206 11	
266	June 20	Alonzo Gesner	Special standard parallel from corner to town-ships 8 and 9 south, ranges 18 and 19 east; east through ranges 19, 20, 21, 22, 23, 24, 25, and 26 east; the exterior boundaries and subdivis-ional lines of township 8 south, ranges 24, 25, and 26 east; the subdivis-ional lines of townships 11 and 12 south, ranges 16 and 17 east; and the ex-terior and subdivis-ional lines of fractional township 9 south, range 19 east, Willamette meridian, Oregon.	48 00 00	47 71 96	477 39 02	5, 050 00	4, 999 21	
267	July 20	George S. Pershin.	The exterior boundaries of townships 27, 28, 29, and 30 south, range 12 east; township 27 south, range 13 east; fractional township 28 south, range 13 east; and the subdivis-ional lines of townships 28 and 29 south, range 12 east; and fractional township 28 south, range 13 east, Willamette meridian.	.....	68 73 76	146 76 05	2, 250 00	2, 200 96	
268	July 19	E. A. Thatcher ...	The exterior and subdivis-ional lines of township 15 south, ranges 24 and 25 east, and township 14 south, ranges 23 and 24 east; and township 13 south, ranges 20, 21, and 22 east, and the subdivis-ional lines of fractional township 14 south, range 22 east, Willamette meridian, Oregon.	.....	73 45 33	435 40 49	5, 470 00	5, 384 99	
Totals				96 63 84	253 61 70	1, 430 33 30	16, 310 00	15, 968 77	

SURVEYOR GENERAL'S OFFICE,
Portland, OreJ., August 3, 1878.

JAMES C. TOLMAN,
Surveyor General, Oregon.

C.—Statement of surveying contracts made under "special deposits" for fiscal year ending June 30, 1878.

No. contract.	Date.	Name of deputy.	Location and description of lines.	Amount surveyed.			Estimated amount of contract.	Amount re- turned.	Amount de- posited.	Remarks.
				Standards.	Exteriors.	Subdi- visions.				
261	1877. Apr. 24	E. P. McCornack...	The subdivisional lines of fractional township 9 south, range 19 east.	<i>M. chs. lks.</i>	<i>M. chs. lks.</i>	<i>M. chs. lks.</i> 2 79 80	\$24 00	\$17 98	\$24 00	Completed.
262	June 26	Wm. P. Wright ..	The exterior and subdivisional lines of fractional township 30 south, of range 13 west.	.....	2 40 00	14 79 95	216 00	179 99	216 00	Do.
263	July 10	...do	The subdivisional lines of (secs. 17, 18, 19, 20, 29, 30, 31, and 32) fractional township 31 south, range 12 west.	.....	15 37 20	1 58 00	160 00	154 65	160 00	Do.
264	July 17	E. P. McCornack ..	The exterior and subdivisional lines of fractional township 2 north, range 19 east.	.....	4 24 50	.....	40 50	40 48	40 50	Do.
269	July 24	William H. Byars	The subdivisional lines of section 10, township 26 south, range 3 west.	.....	.....	3 00 84	30 00	30 00	30 00	Do.
271	Aug. 18	William Thiel	The subdivisional lines of fractional township 20 south, range 10 west.	.....	.....	5 77 60	22 50	.....	22 50	Deputy still in the field.
272	Aug. 22	William H. Byars.	The exterior and subdivisional lines of fractional township 25 south, range 6 west.	.....	2 00 00	2 01 03	56 00	44 12	56 00	Completed.
273	Aug. 25	John Fitzhugh....	The subdivisional and meander lines of fractional township 35 south, range 14 west.	.....	.....	17 58 49	180 00	177 31	180 00	Do.
274	Sept. 10	W. H. Byars.....	The exterior and subdivisional lines of fractional township 22 south, ranges 9 and 10 west.	.....	1 40 00	5 27 10	87 00	74 38	87 00	Do.
275	Oct. 18	John W. Meldrum	The exterior lines of townships 31, 32, 34, and 35 south, range 32 east, and the subdivisional lines of township 31 south, range 32 east.	6 00 00	85 77 68	58 35 59	885 00	1,012 47	1,029 00	Do.
276	Oct. 20	Wm. P. Wright...	The exterior and subdivisional lines of fractional township 30 south, range 13 east.	.....	3 00 00	15 02 40	192 00	192 00	192 00	Do.
277	Nov. 30	George Mercer....	The exterior and subdivisional lines of fractional township 14 south, range 7 west.	.....	.....	.....	74 00	.....	74 00	Notes returned but not platted.
278	Dec. 20	William Hall	The subdivisional lines of fractional township 25 south, range 11 west.	.....	.....	9 34 42	95 00	94 32	95 00	Completed.
279	1878. Mar. 5	William H. Byars	The exterior and subdivisional lines of fractional townships 22 and 23 south, ranges 8 and 9 west.	.....	.....	.....	320 00	.....	320 00	Notes returned but not platted.
280	May 8	Wm. P. Wright...	The subdivisional lines of fractional township 31 south, range 15 west (secs. 1, 2, 11, and 12).	.....	.....	.....	60 00	.....	60 00	Deputy still in the field.
281	May 16	...do	The subdivisional lines of fractional township 31 south, range 5 west.	.....	.....	.....	120 00	.....	120 00	Notes not yet returned.
282	May 31	...do	The exterior and subdivisional lines of fractional township 31 south, range 14 west.	.....	.....	.....	156 00	.....	156 00	Do.
283	June 17	John Fitzhugh....	The subdivisional lines of fractional township 31 south, range 15 west.	.....	.....	.....	50 00	.....	50 00	Do.

284	June 21	T. W. S. Slusher...	The exterior lines (west boundary), township 3 south, range 11 west, and the exterior and subdivisional lines of fractional township 2 south, ranges 10 and 11 east.	.....	.....	.....	239 00	.....	239 00	Do.
285	June 20	H. G. Hurlburt...	The subdivisional lines of fractional township 29 south, range 6 west.	.....	.....	.....	20 00	.....	20 00	Do.
Minor totals of miles surveyed.....				6 00 00	114 59 38	136 55 22	.....	.....	.....	
Grand total of miles surveyed .....				.....	.....	257 34 60	.....	.....	.....	
Total estimated amount of contracts .....				.....	.....	.....	3,027 00	.....	.....	
Total amount returned.....				.....	.....	.....	.....	2,017 70	.....	
Total amount deposited.....				.....	.....	.....	.....	.....	3,171 00	

SURVEYOR GENERAL'S OFFICE,
Portland, Oreg., August 3, 1878.

JAMES C. TOLMAN,
Surveyor General Oregon.

D.—Statement of original plats of surveys and copies transmitted since June 30, 1877.

Lines.	Townships.	Ranges.	Plats made.				Acres.	Number of con- tract.	Names of deputies.
			Original.	Copies sent to Com- missioner.	Copies sent to register.	Total.			
Subdivisions	26 south	33 east	1	1	1	3	14,906.46	253	Meldrum & Moore.
Do	27 south	33 east	1	1	1	3	22,918.45	253	Do.
Do	29 south	33 east	1	1	1	3	23,044.26	253	Do.
Do	26 south	34 east	1	1	1	3	22,761.11	253	Do.
Do	27 south	34 east	1	1	1	3	22,866.90	253	Do.
Do	28 south	34 east	1	1	1	3	22,955.35	253	Do.
Do	29 south	34 east	1	1	1	3	23,075.99	253	Do.
Do	26 south	35 east	1	1	1	3	22,697.73	253	Do.
Do	27 south	35 east	1	1	1	3	22,832.73	253	Do.
Do	28 south	35 east	1	1	1	3	22,993.21	253	Do.
Do	26 south	36 east	1	1	1	3	22,898.96	253	Do.
Do	26, 27, 28, 29, and 30 south.	34, 35, and 36 east	1	1	1	2	.....	253	Do.
Exteriors	12 south	11 west	1	1	1	3	3,361.82	195	J. M. Dick.
Subdivisions	10 south	11 west	1	1	1	3	8,676.73	257	James A. Warner.
Do	10 south	10 west	1	1	1	3	7,430.03	257	John W. Meldrum.
Do	29 south	30 east	1	1	1	3	23,042.67	259	Do.
Do	30 south	35 east	1	1	1	3	22,969.92	259	Do.
Do	30 south	30 east	1	1	1	3	23,057.21	259	Do.
Do	26 south	32 east	1	1	1	3	5,063.65	259	Do.
Do	30 south	34 east	1	1	1	3	23,049.56	259	Do.
Do	30 south	33 east	1	1	1	3	23,047.28	259	Do.
Do	27 south	32 east	1	1	1	3	22,358.93	259	Do.
Exteriors	29 and 30 south	30, 31, 32, and 33 east	.....	.....	.....	.....	.....	.....	Do.
Do	28 south	31, 32, and 33 east	.....	.....	.....	.....	.....	.....	Do.
Do	26 and 27 south	33 east	.....	.....	.....	.....	.....	.....	Do.
Do	27 south	31 and 32 east	.....	.....	.....	.....	.....	.....	Do.
Do	26 south	31 east	.....	.....	.....	.....	.....	.....	Do.
Do	28 south	30 east	1	1	1	2	.....	252	Do.
Subdivisions	26 south	21 east	1	1	1	3	23,159.14	255	H. C. Perkins.
Do	27 south	23 east	1	1	1	3	23,107.24	255	Do.
Do	27 south	22 east	1	1	1	3	23,085.13	255	Do.
Do	27 south	21 east	1	1	1	3	23,072.61	255	Do.
Do	26 south	22 east	1	1	1	3	23,097.30	255	H. C. Perkins.
Do	26 south	23 east	1	1	1	3	23,117.40	265	Do.
Do	26 south	Maps of protraction with a total acreage of.....	5	5	5	15	20,364.73	.....	.....
Total number of maps and acres platted.....							565,012.50		

JAMES C. TOLMAN, Surveyor General of Oregon.

SURVEYOR GENERAL'S OFFICE, Portland, Oreg., August 3, 1878.

E.—Statement of original plats of surveys of mining claims and copies transmitted since June 30, 1877.

Designation of claim.	District.	Lot number.	Location.	Plats made.				
				Original.	For Commis-sioner.	For register.	For claimant.	Total.
D. A. Levens' placer mining claim.	Green Mountain.	Lot No. 37...	Douglas County, Oreg.	1	1	1	1	4
White Bull rock claim	District No. 3...	do	Linn County, Oreg....	1	1	1	1	4
Coquille black sand mine.	Mineral district No. 6.	Claim No. 41.	Coos County, Oreg ...	1	1	1	1	4
John F. Wiegman's rock claim.	Granite mining district No. 4.	Lot No. 101..	Grant County, Oreg ..	1	1	1	1	4
Do	do	Lot No. 93 ..	do	1	1	1	1	4
Horace Worcester's rock claim.	do	Lot No. 100..	do	1	1	1	1	4
Total.....	.....	.....	.....	6	6	6	6	24

JAMES C. TOLMAN,
Surveyor General of Oregon.

SURVEYOR GENERAL'S OFFICE,
Portland, Oreg., August 3, 1878.

F.—Statement of appropriations and expenditures for surveyor general of Oregon and clerks in his office for the year ending June 30, 1878.

DR.			CR.		
Date.	How expended.	Amount.	Date.	Amount of appropriation.	Amount.
Sept. 30, 1877	To amount paid the surveyor general and clerks in his office, as per accounts rendered, in third quarter of 1877.	\$1,925 00	July 1, 1877	By amount of appropriation for fiscal year ending June 30, 1878.	\$7,000 00
Dec. 31, 1877	To amount paid the surveyor general and clerks in his office, as per accounts rendered, in fourth quarter of 1877.	1,825 00			
Mar. 31, 1878	To amount paid the surveyor general and the clerks in his office, as per accounts rendered, in the first quarter of 1878.	1,725 00			
June 30, 1878	To amount paid the surveyor general and clerks in his office, as per accounts rendered, in the second quarter of 1878.	1,523 90		To expenditures as stated.	6,998 90
				By balance unexpended.	1 10

JAMES C. TOLMAN,
Surveyor General of Oregon.

SURVEYOR GENERAL'S OFFICE,
Portland, Oreg., August 3, 1878.

G.—Statement of special deposits made to credit of the United States for survey of public lands in Oregon during the fiscal year ending June 30, 1878.

Dr.

Cr.

Date.	Names of depositors.	For the survey of—	For office work.	For field work.	Date.	Amount drawn.	For office work.	For field work.
1877. Aug. 7	W. C. Burke.....	Exterior and subdivisinal lines of fractional township 25 south, range 6 east.	\$20 00	\$56 00	1877. Dec. 31	By amount paid clerk and draughtsmen in the quarter ending December 31, 1877, as per accounts rendered..	\$105 00	.....
Aug. 11	L. Woodruff.....	Subdivisinal and meander lines of fractional township 35 south, range 14 west.	20 00	180 00	1878. June 21	By paid W. H. Byars's surveying account .....	.....	\$44 12
Aug. 18 Sept. 4	F. M. Johnson.....	Subdivisinal lines of fractional township 20 south, range 10 west.	10 00	22 50	1877. Dec. 18	By paid John Fitzhugh's surveying account .....	.....	177 31
Sept. 4	H. Decker <i>et al</i> ...	Exterior and subdivisinal lines of fractional township 22 south, ranges 9 and 10 west.	20 00	87 00	1878. June 21	By paid W. H. Byars's surveying account .....	.....	74 38
Sept. 11	Thomas Hodgkins.	Small island in township 8 north, range 5 west.	20 00	20 00	Jan. 31	By paid J. W. Meldrum's surveying account .....	.....	1,012 47
Oct. 4	I. R. Moores.....	For survey of White Bull mining claim in mining district No. 3, lot No. 37.	20 00	.....	May 31	By paid W. P. Wright's surveying account .....	.....	192 00
Oct. 16	G. Hohendel <i>et al</i> .	Exterior lines of townships 31, 32, 34, and 35 south, range 32 east, and subdivisinal lines of township 31 south, range 32 east.	10 00	.....	June 21	By paid W. H. Hall's surveying account .....	.....	94 32
Oct. 17	W. S. Bennett.....	Exterior and subdivisinal lines of fractional township 30 south, range 13 east.	100 00	1,029 00	June 29	By paid George Mercer's surveying account .....	.....	73 80
Nov. 24	J. Pitman.....	Exterior and subdivisinal lines of fractional township 14 south, range 7 west.	20 00	74 00	June 30	By amount paid clerks and draughtsmen to end of the quarter ending June 30, 1878, as per accounts rendered	295 00	.....
Dec. 19	E. K. Packard.....	Subdivisinal lines of fractional township 25 south, range 11 west.	25 00	95 00				
Dec. 29	D. A. Levens.....	D. A. Leven's placer mining claim in Green Mountain mining district, lot No. 37.	20 00	.....				
Dec. 4	John F. Weigman.	John F. Weigman's rock mining claim in mining district No. 4, lot No. 101.	15 00	.....				
Dec. 4	John F. Weigman	John F. Weigman's rock mining claim in mining district No. 4, lot No. 99.	15 00	.....				
Dec. 4	H. Worcester.....	H. Worcester's rock mining claim in granite mining district No. 4, lot No. 100.	15 00	.....				
Mar. 5	Chris. Hacker.....	Exterior and subdivisinal lines of fractional townships 22 and 23 south, ranges 8 and 9 west.	25 00	320 00				
Mar. 8	J. P. Russel.....	Subdivisinal lines of fractional township 31 south, 15 west.	20 00	60 00				

May 30	Pat Dwyer.....	Exterior and subdivisional lines of fractional township 31 south, range 14 west.	25 00	156 00		
May 13	J. J. Moss	Subdivisional lines of fractional township 31 south, range 5 west.	25 00	120 00		
May 31	Sol. J. Culver.....	Subdivisional lines of fractional township 31 south, 15 west.	20 00	50 00		
June 20	H. Smith.....	Fractional township 29 south, range 6 west.	20 00	20 00		
June 21	E. B. & A. J. Dufur	Exterior lines of township 3 south, range 11 east, and the exterior and subdivisional lines of fractional township 2 south, ranges 10 and 11 east.	21 00	239 00		
June 25	William Trask....	Small island in the Umpqua River, Douglas County, Oregon.	5 00	10 00		
Totals.....			496 00	2,730 00		
Totals					400 00	1,668 00

SURVEYOR GENERAL'S OFFICE,
Portland, Oreg., August 3, 1878.

JAMES C. TOLMAN,
Surveyor General of Oregon.

H.—Statement of appropriations and expenditures for incidental purposes in office of surveyor general of Oregon, for the fiscal year ending June 30, 1878.

Dr.			Cr.		
Date.	Disbursements.	Amount.	Date.	Appropriation.	Amount.
1877. Sept. 30	To amount of disbursements in the quarter ending September 30, 1877, as per accounts rendered.	\$218 75	June 30	By amount of appropriation for incidental expenses, including pay of messenger, \$600, for the fiscal year ending June 30, 1878.	\$1,500
Dec. 31	To amount of disbursements in the quarter ending December 31, 1877, as per accounts rendered.	367 98			
1878. March 31	To amount of disbursements in the quarter ending March 31, 1878, as per accounts rendered.	271 15			
June 30	To amount of disbursements in the quarter ending June 30, 1878, as per accounts rendered.	455 12			
	Total of disbursements..	1,313 00		Deduct expenditures...	1,313
				Leaving a balance unexpended.	187

SURVEYOR GENERAL'S OFFICE,
Portland, Oreg., August 3, 1878.

JAMES C. TOLMAN,
Surveyor General of Oregon.

I.—Estimate of funds required for the surveying service in Oregon for the fiscal year ending June 30, 1880.

FOR SURVEYS IN EASTERN OREGON.

For running, measuring, and marking the following lines within the agricultural and timbered districts of Oregon:

For agricultural and pasture lands, 132 miles of standard lines, at \$10 per mile	\$1,320 00
For agricultural and pasture lands, 600 miles of exterior lines, at \$7 per mile	4,200 00
For agricultural and pasture lands, 3,300 miles of subdivisional lines, at \$6 per mile	18,000 00
For mountainous and timbered lands, 202 miles of standard lines, at \$16 per mile	3,232 00
For mountainous and timbered lands, 600 miles of exterior lines, at \$14 per mile	8,400 00
For mountainous and timbered lands, 3,000 miles of subdivisional lines, at \$10 per mile	30,000 00
Total for surveys in Eastern Oregon	65,152 00

FOR SURVEYS IN WESTERN OREGON.

For agricultural and timbered lands, 240 miles of exterior lines, at \$14 per mile	3,360 00
For agricultural and timbered lands, 1,200 miles of subdivisional lines, at \$10 per mile	12,000 00
For agricultural and timbered lands, 84 miles of exterior lines, at \$7 per mile	588 00
For agricultural and timbered lands, 420 miles of subdivisional lines, at \$6 per mile	2,520 00
Total for surveys in Western Oregon	18,468 00
Total amount asked for surveys for the year ending June 30, 1880...	83,620 00

FOR OFFICE WORK.

For salary of surveyor general	\$2,500 00
For salary of chief clerk	1,800 00
For salary of draughtsmen (two at \$1,400 each per annum)	2,800 00
For salary of transcribing clerks (two at \$1,200 each per annum)	2,400 00
Total salaries	9,500 00

FOR INCIDENTAL EXPENSES.

For pay of messenger, purchase of stationery, and incidental expenses of office of surveyor general of Oregon	1,500 00
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JAMES C. TOLMAN,
Surveyor General of Oregon.

SURVEYOR GENERAL'S OFFICE,
Portland, Oreg., August 3, 1878.

P.—*Report of the surveyor general of California.*

UNITED STATES SURVEYOR GENERAL'S OFFICE,
San Francisco, Cal., August 22, 1878.

SIR: In compliance with your instructions I have the honor to submit, in duplicate, the annual report of this office in relation to the surveying service in California during the fiscal year ending June 30, 1878.

I also forward tabular statements as follows:

A.—Statement of contracts entered into by the United States surveyor general for California with deputy surveyors for surveys of public lands during the fiscal year 1877-'78, and payable out of the appropriation for the fiscal year.

B.—Statement of contracts entered into by the United States surveyor general for California with deputy surveyors for surveys of public lands during the fiscal year 1877-'78, and payable out of the private deposits made in conformity with the act of May 30, 1862, and March 3, 1871.

B B.—Statement of contracts entered into by the United States surveyor general for California with deputy surveyors for surveys of private land claims during the fiscal year ending June 30, 1878, payable out of the public appropriation for the year 1877-'78.

C.—Statement of surveys of mines in California for the fiscal year 1877-'78, made in conformity with act of Congress approved May 10, 1872.

D.—Statement showing number of miles surveyed in California to June 30, 1878.

E.—List of lands surveyed in California from July 1, 1877, to June 30, 1878.

F.—Statement of plats made in the office of the United States surveyor general for California during the fiscal year 1877-'78.

G.—Statement of transcripts of field notes of public surveys sent to the department at Washington from the office of the surveyor general for California during the fiscal year 1877-'78.

H.—Statement of descriptive notes, decrees of court, &c., in the matter of the surveys of private land claims transmitted to the department at Washington during the fiscal year 1877-'78.

I.—Statement of special deposits for the survey of public lands in California during the fiscal year 1877-'78.

J.—Statement of special deposits for the survey of mining claims in California during the fiscal year 1877-'78.

K.—Statement of account of appropriation for the survey of public lands in California during the fiscal year 1877-'78.

L.—Statement of account of appropriation for office rent, pay of messenger, and incidental expenses of the office of the United States surveyor general for California for the fiscal year ending June 30, 1878.

M.—Account of appropriation for the salary of United States surveyor general for California for the fiscal year ending June 30, 1878.

N.—Statement of account of appropriation for compensation of clerks and draughtsmen in the office of the United States surveyor general for California for the fiscal year ending June 30, 1878.

O.—Statement of special individual deposits with the United States assistant treasurer at San Francisco during the fiscal year 1877-'78 for compensation of clerks and draughtsmen in the office of the United States surveyor general for California.

P.—Statement of special deposit account for the fiscal year 1877-'78.

PP.—Statement of accounts of deputies, &c., paid from appropriation for the survey of private land claims in California during the fiscal year 1877-'78.

Q.—Estimate for the surveying service in the district of California for the fiscal year ending June 30, 1880.

SURVEYS OF PUBLIC LANDS.

California is the largest of the public-land States and surveying districts, containing 155,000 square miles, of which about 57,000,000 acres have been surveyed and about 43,000,000 acres now remain unsurveyed.

In former years it was left to deputy surveyors to select the land to be surveyed, and the consequence of this was that generally only level, plain lands were surveyed. Much of the land thus surveyed being arid plain, is nearly worthless for all purposes except that for which it is used, *i. e.*, furnishing profitable and easy work for deputy surveyors, and has remained unsold and undisposed of to this day, although in the market for over twenty-five years. All hilly lands, and lands interspersed by small valleys, and lands covered with undergrowth or timber, were generally carefully avoided by deputies in former years, not being so profitable to survey. This being a region, however, where the rain-fall is but scanty, the lands left unsurveyed formerly are really the most valuable for agricultural purposes, because the rain-fall generally is greater among the hills than in the large, arid plains, and the smaller valleys are usually watered by streams that soon sink and disappear after emerging among the hills upon the larger arid plains.

In former years there was comparatively but little agriculture carried on in this State, and most of the residents were engaged either in raising live stock or mining; and only since a comparatively recent time have the agricultural resources of this State been developed, and they may yet be said to be in their infancy.

Most of the settlements for agricultural purposes have been made among the foothills and in the smaller valleys among the mountains, and considerable upon table lands in the mountains and upon the gentler mountain slopes. Most of these localities now remain unsurveyed, and the small appropriation made by Congress for the survey of public lands in this State has been insufficient to survey more than but a small fraction of the lands actually settled upon and unsurveyed. This policy has operated injuriously to the best interests of this State and the smaller neighborhood communities. One result of this state of things was that the occupants of unsurveyed lands were unable to obtain a title thereto from the United States. The State legislature passed laws to protect them in their possession until such time as the land might be lawfully acquired. Under these laws, however, it frequently happens that a single individual is able to hold, as against others seeking homes, large tracts of thousands of acres by simply fencing, using, and occupying the land. Of course such a person does not want the land surveyed, and he will do all he can to prevent it, for as long as the land remains unsurveyed he can use and enjoy it all without cost, and without paying taxes thereon; but as soon as it is surveyed others can obtain a better title than mere possession to portions of it, and the occupant is restricted to what he can legally claim under United States laws. Much desirable land which would furnish homes for a large number of families is held by a few individuals in this manner, and will be so held as long as Congress fails to appropriate a sufficient sum to properly carry on the public surveys. The very fact that such laws were enacted by the State authorities shows that there must have been many settlements upon unsurveyed lands, and, in fact, I might say that by far the larger amount of settlements is upon unsurveyed lands. In this connection I would respectfully call attention to the fact that the disposals of public lands for cash by pre-emption and under the provisions of the homestead law have been larger in California than in any other State during the year 1876-'77, viz, \$601,991.78, notwithstanding that an unprecedented drought prevailed in this State during that year, and I believe the same has been the case during the year 1877-'78. This proves, which is also attested by other statistics, that immigration from other portions of the United States is very heavy in this State of people attracted by its unsurpassed climate and fruitful soil.

All the money which may be appropriated by Congress for surveys in this State is only in the nature of a temporary outlay, which is in a few months returned to the Treasury in the purchase money paid for lands.

The matter of the first importance in connection with the future progress of public surveys in California is the extension of standard meridian lines and township exteriors wherever practicable over the State.

It is, and has been for several years, a source of much trouble to settlers desiring surveys under the special deposit system to define their locus when making application for surveys. It is not unfrequent that interested parties desire the survey of an isolated township, involving the necessity of extending the standard and township lines from some remote point in order to get an initial corner for defining the boundaries of the tract they are immediately interested in. Now, there being no special provision made for the extension of standard and meridian lines, or township exteriors, independent of the subdivisional survey, and the amount appropriated for surveys being

totally inadequate, it follows that a hardship is imposed upon settlers in compelling them to pay for such extension, without which their lands cannot be correctly located. It is needless, perhaps, to endeavor to show the almost certain errors likely to occur in projecting these important lines, little by little, and in fragmentary portions, as has in many instances heretofore been done, and necessarily so, from the want of sufficient appropriation by Congress.

It may be said that a large portion or all of the appropriation made by Congress might have been devoted to the extension of these lines; but that could not be done, for the reason that the compensation allowed under the appropriation for surveying such lines *alone* is entirely too low, so that no deputy can take a contract of that kind without losing money, except in very few exceptionally favorable localities. The reasons why deputies cannot afford to run these lines at as low rates as they can run section lines are various. These lines must be run with more care; the work is not as compact, but more scattered; the deputy can really have no camp from which he can prosecute his work—no base of supplies—but he and his assistants, with their supplies, must follow the work right on. The cost and difficulty of this is very great in such rough country as the remaining surveys in this State will now have to be made in. It is therefore impossible, except in a few isolated instances, to obtain deputies who will take contracts for the extension of these standard and exterior lines separately from subdivision lines at the rates now allowed under the appropriation. The lowest rates at which the lines can be thus executed separately in this State are for standard and meridian lines \$18 per mile, and for township lines \$16 per mile.

By the extension of these exterior lines six miles apart a better idea may be formed of the general topography of the country, and its adaptability for agricultural or other purposes contemplated in the prosecution of the public surveys.

In townships not susceptible of rectangular subdivision a basis is thus formed for accurate triangulation for the location of tracts of land within such exteriors as cannot be reached by the rectangular method, and the boundaries of which may assume any shape.

By the non-extension of standards, meridians, and township exteriors great confusion has arisen in determining the position of mining claims with reference to the lines of public surveys—a confusion in a manner obviated by establishing independent monuments of reference, but which may be obviated altogether by the extensions suggested. In my opinion the public surveys should invariably be so conducted that standard and meridian and township and subdivision lines are established by different deputies, and for this reason, that if erroneous measurements were made in the lines first established, or the work not properly done, the other deputy closing his lines on the corners established by the former would be sure to discover the error or omission.

I estimate the number of miles of meridian, auxiliary meridian, and standard lines remaining to be surveyed at about 600, and the number of miles of township exteriors at about 10,000; and I would recommend that special provision be made by sufficient appropriation for the immediate completion of these lines.

The appropriation for subdividing townships in this State for the ensuing fiscal year should not be less than \$100,000, independent of the appropriation for extending standard, meridian, and exterior township lines.

The law contemplates that as soon as the public surveys in a district are completed the office of surveyor general shall cease for that district, and it is made the duty of the department to prosecute the surveys with all reasonable dispatch. This office, however, has been unable to comply with the plain intention of the law in this respect for want of sufficient appropriation, and it would seem questionable economy to establish and keep in operation an expensive machinery for doing a work which needs to be done without providing the means to do it.

If Congress provides the necessary means, the surveys in this State can be completed in from four to five years; so that this office may within a year thereafter be discontinued, as contemplated by section 2218 of the Revised Statutes of the United States. As before stated, the amount required, although it may seem a large outlay, will merely be in the nature of a temporary outlay, which will be returned manifold to the Treasury through sales of land, &c.

Should the completion of the public surveys at as early a date as practicable not be deemed advisable, I would nevertheless recommend that full provision be made for completing the surveys of the standard meridian and township lines. Most of the subdivision surveys could then be executed under the special deposit system by a slight amendment of the special deposit act, by making it available for all classes of entries, and by making the certificate of deposit assignable and receivable for all classes of lands, including lands under desert, timber, homestead, and pre-emption laws.

I found upon taking charge of this office that the current work was in arrears from one to three years, caused by the insufficient appropriations for the office proper. For the year now closed, there was an expenditure in excess of the appropriation of \$5,971.76, for which my predecessor is responsible. This amount is due to employes of the office, as appears in Table N. These men worked faithfully, and are certainly

entitled to their pay, and it is a great hardship upon them to be compelled to wait a year or longer for the money which they have earned. I therefore recommend that Congress be requested to make provision for the payment of said claims.

In order to bring up the work now in arrears, an addition to the present appropriation of \$10,000 per annum will be necessary for two years, and I respectfully recommend that Congress be requested to make such provision at the earliest practicable moment, as there is much work now pending in this office which needs to be done at once, but which cannot be done unless such provision is made. One of the items of this work is the swamp-land segregation under section 2483 of the Revised Statutes of the United States. This one item will occupy two draughtsmen and one clerk for the period of one year. It is very desirable to the United States, the State of California, and individuals in interest, that this matter should be disposed of at as early a date as practicable; and there are other items of work equally necessary and laborious which ought to be disposed of, but which it is entirely impossible to attend to with the present means provided.

The reason why so much help is asked for by this office is the multifarious character of its duties, the same being not wholly of a mathematical character, but many of them being semi-judicial in their nature. For instance, in making partition of swamp and dry lands between the United States and the State of California, the law requires the surveyor general to determine *from evidence*, to be taken according to prescribed forms, what was swamp land upon a certain day (September 28, 1850), and what was dry land. This not only involves examinations and the taking of testimony in writing, but also the giving of proper notices, correspondence, preparation of papers, publication, issuing citations, &c., and throws a large amount of work upon the office.

The settlement of boundaries of private land claims involves similar proceedings and a large amount of similar work, for which no provision is made by Congress beyond the regular office force, which at present, with the provision now made, is insufficient even to carry on the office work legitimately appertaining to the survey of the public lands, without reference to the other duties imposed upon this office.

As will be seen from the tables of recapitulation of the work done by this office during the past fiscal year, 1,168 maps and plats, originals and copies, under their several classifications, have been prepared by the draughting division, and a set of field notes, to accompany each map, copied by the clerks. This does not include the maps and copies of field notes furnished to deputies as a basis for their surveys, nor the correspondence and other routine office work.

Errors are frequently discovered by this office, and field notes returned to the deputy with explanations and instructions, and errors are frequently discovered by the General Land Office which were overlooked in this office, and changes and amendments must be made in former surveys by the subsequent discovery of errors. Many questions, involving the decision of difficult points, arise, where authorities must be examined, precedents looked up, &c.

The large amount of the current business of this office is constantly augmented by the fact that as the surveys projected from different points close upon each other, errors are discovered, and the work must be made to properly connect. If the settlement of land titles and boundaries and the development of the agricultural and mineral and other resources of this State are of any consequence whatever, a reasonable and sufficient amount of money should be appropriated for conducting the business of this office.

I have endeavored, as best I could, to conduct the business of this office with the totally inadequate means provided by Congress, and to this end I have made the following reductions in the salaries of employés paid from the appropriation, viz:

	Former rate—	Reduced to—
J. A. Robinson, chief clerk	\$2,500	\$2,400
J. H. Wildes, chief draughtsman	2,300	2,000
S. N. Blevin, clerk of accounts	2,000	1,800
R. C. Hopkins, keeper of archives	2,000	1,800
C. Bielawski, draughtsman	2,000	1,800
J. K. Carter, ranch clerk	1,800	1,600

I have also increased the office or working hours. In justice to the employés of this office, I would state that frequently they have cheerfully worked from ten to twelve hours a day, and have faithfully seconded me in my efforts to do as much of the work as possible. I deem it but justice to say that the compensation paid the employés is very low, considering the conditions existing here, such as rents and prices of necessaries, &c., not to forget that they are paid quarterly. Especially is this the case with the draughtsmen, and I would recommend that a sufficient appropriation be made to enable me to pay the chief draughtsman at least his former salary of \$2,300.

The complicated nature of the surveys in this State requires often deliberate investigation and study, and the construction of maps and plats forms but a small portion of

the labor in each case. The office work increases constantly, and now needs at least four experienced draughtsmen, to be paid from appropriation.

The question of abolishing several surveying districts and consolidating them all into one district, with headquarters at Washington, was agitated during the last session of Congress, and I may be pardoned for referring to it. The question as to the system of surveys, whether pursued under the contract or salary system, not being considered; as the location of claims and the defining of boundaries of every description would require the same attention to detail under the proposed system as at present, and the same work as is now done in this office would then have to be done elsewhere, and there would be nothing saved but the salaries of the respective surveyors general, and, as some one would have to supervise and direct surveys within the districts, even that is questionable.

When the extent and area of the State of California is remembered, it will readily be seen that, even with San Francisco as a base for directing operations, the districts to be surveyed are, in many instances, remote, and communication with the parties in the field a matter of considerable time. Deputy surveyors are often obliged to come to the office from a distance to consult records or to explain matters not capable of any other solution than by personal communication with those in the office having in charge the details of surveys. Not a day passes that parties from different portions of the State do not call upon this office for examination of records affecting their interests in one way or another. Members of the bar of California, many of them engaged in land cases, have frequently immediate necessity for consulting the Spanish archives and surveying records of this office.

Whatever seeming benefits might accrue by a consolidation of all the surveying districts at Washington would be more than offset by increased delays in the transaction of the business of the people of this State; and in the present stage of the public surveys of this State any change from the former system must work injuriously, and the supposed savings and benefits cannot compensate for the inevitable confusion, delays, and disarrangements which a change of system would cause in this State.

I would also state that an increased appropriation for field work will necessarily involve a larger amount of office work; hence, should the appropriation for field work be made as herein suggested, a corresponding amount will have to be provided for office work. Even now the appropriations for office work in all classes of public surveys under control of this office are totally disproportionate and inadequate to those made in the field.

The work done by this office is not only to supervise the execution of surveys, but a large part of the legitimate surveying work is done by the employés of this office. The deputy does only the field work and the office does the office work, which is as much a part of the necessary surveying work as that in the field.

Under the provisions of section 2223 Revised Statutes, I have appointed the following deputy surveyors, viz: James M. Anderson, Placerville, El Dorado County; John Gilcrest, Oakland, Alameda County; J. R. Glover, San Francisco; W. J. Lewis, San Francisco; William Minto, San Francisco; J. A. Benson, San Francisco; J. E. Freeman, San Francisco; Charles F. Hoffman, San Francisco; G. Howard Thompson, San Francisco; W. H. Carlton, San Francisco; I. N. Chapman, San Francisco; Charles T. Healy, San Francisco; W. F. Benson, San Francisco; G. F. Allard, San Francisco; D. D. Brown, San Francisco; James E. Woods, San Francisco; A. E. Gans, San Francisco; W. A. Richards, San José, Santa Clara County; M. G. Wheeler, San Diego, San Diego County; A. B. Blauvais, Columbia, Tuolumne County; R. R. Harris, San Luis Obispo, San Luis Obispo County; Mark Howell, Merced, Merced County; J. G. Parke, Bakersfield, Kern County; A. A. Smith, Susanville, Lassen County; Milton Santee, Susanville, Lassen County; T. H. Ward, Red Bluff, Tehama County; W. S. Lowden, Weaverville, Trinity County; Thomas Creighton, Visalia, Tulare County; W. H. Norway, Santa Barbara, Santa Barbara County; J. C. Fairchild, Oakland, Alameda County; Arthur L. Cox, Santa Rosa, Sonoma County; P. Y. Baker, Visalia, Tulare County; W. F. Boardman, Oakland, Alameda County; A. W. Kiddie, Quincy, Plumas County; C. J. Fox, San Diego, San Diego County; L. D. Bond, Upper Lake, Lake County; J. C. des Granges, Oakland, Alameda County; William Magee, Shasta, Shasta County; R. B. Thomas, Mariposa, Mariposa County; George J. Specht, Salinas, Monterey County; James Branham, Susanville, Lassen County; Luis Castro, Oakland, Alameda County; William P. Reynolds, Los Angeles, Los Angeles County; H. B. Shackelford, Red Bluff, Tehama County; S. A. Hanson, Independence, Inyo County; M. F. Reilly, Eureka, Humboldt County; Lucian B. Healy, Red Bluff, Tehama County; J. W. Seidlinger, Downieville, Sierra County; D. C. Hall, Quincy, Plumas County; F. A. Gibson, Los Angeles, Los Angeles County; E. T. Wright, Los Angeles, Los Angeles County; John C. Reid, Stockton, San Joaquin County; G. W. Baker, Stockton, San Joaquin County; C. F. Putnam, Oakland, Alameda County; N. L. Bredan, Chico, Butte County; R. K. Nichols, Lower Lake, Lake County; L. B. Gorham, Willets, Mendocino County; A. T. Herrmann, San José, Santa Clara County; Frank S. Ingalls, Salinas, Monterey County; St. John Cox, Salinas, Monterey County; L. D. Chillson, San Buenaventura, Ventura

County; J. L. McCoy, Mayfield, Santa Clara County; R. F. Herrick, Eureka, Humboldt County; H. J. Stevenson, Los Angeles, Los Angeles County; H. J. Haber, Los Angeles, Los Angeles County; Seth Smith, Visalia, Tulare County; George W. Smith, Vallejo, Solano County; H. I. Willey, San Diego, San Diego County.

PRIVATE LAND CLAIMS.

Another question of great importance is the settlement at as early a date as practicable of the boundaries of the California private land claims.

Adjacent public lands are in many cases held in a state of reservation, and in some cases townships are held suspended or kept from being surveyed by reason of the undefined boundaries of some Spanish or Mexican grant, and settlers' claims thereon are consequently retarded, involving to them litigation, expense, and delay, besides uncertainty; and in this connection attention is called to the fact that although Congress has made provision for the field work for surveying these private land claims, no provision whatever has been made for office work, viz: calculations, copying, and preparing descriptive notes, decrees, &c., mapping, taking testimony, and other incidental work.

The settlement of the boundaries of private land claims in California has been a source of much labor, both to this office and the General Land Office. Eight hundred and thirteen claims were presented for confirmation before the "board of land commissioners to ascertain and settle private land claims in California." Of these 813 claims, some 170 were finally rejected by the courts of the United States; the remaining 643 having been confirmed, with the exception of one or two cases still pending before the United States district court. Of the claims finally confirmed, 570 have been surveyed, leaving 73 still to be surveyed. Of the claims surveyed, 498 have gone to patent, and the remainder are still pending before this office and the department. Thus it appears that, although nearly twenty-seven years have elapsed since the first claim under a Spanish or Mexican grant in California was presented for confirmation before the board of land commissioners, the records of this office show that there is still before it, and before the Land Department in Washington, a large balance of unfinished business in relation to the final settlement of Spanish and Mexican grants in this district. Various causes have contributed to these long and tedious delays in the settlement of these claims.

The Spanish or Mexican population of California were a strictly pastoral people; the country was isolated from the commercial portions of the earth, and but sparsely settled; therefore, prior to the Anglo-American conquest of 1846, lands were of but little value. Extensive grants of land were made by the Spanish and Mexican Governments, which were generally but vaguely bounded by mountains and streams, and imperfectly described by rude maps, on which the courses and distances, as shown, were scarcely ever even approximately correct. This incorrectness as to *course* and *distance* is easily accounted for: except in a very few instances no instruments were used by the Mexican alcalde whose duty it was to measure the rancho and give possession thereof to the grantee. The courses were guessed at, and the measurements, *when made* with a cord, were generally by persons on horseback, and very often the distances were *not measured at all*, but were merely *estimated*, and since the traveler, in those times, usually estimated the distance between two points by the time occupied in going from one to the other, the distance as thus calculated by him usually depended on the *fleetness of the horse* he was riding. Under these circumstances, it is not strange that but little reliability can be placed upon the boundary, so called, of the original title papers of Spanish land grants in California as to *course* and *distance*, and the same is true with regard to *area*, as estimated. It is different, however, with regard to natural land marks, when such are called for in the old title papers.

The Mexican inhabitants of California, spending as they did much of their time in the open air and on horseback looking after their stock, gave significant names to prominent landmarks, such as springs, arroyos, mountains, hills, valleys, rocks, &c., and which landmarks, although rudely described by the illiterate ranchero of the olden time, can always be identified when sufficient care and intelligence are used in seeking such information. Many of these landmarks, however, were not permanent in their nature, and liable to decay or to disappear, especially when the whole business and occupation of the inhabitants changed from one pursuit to the present diversified industries. This uncertainty of boundary, however, caused but little difficulty among the stock raising population of California, since but few controversies arose among them in relation to the boundaries of their ranchos, and such as did occur were generally in relation to some desirable locality, such as a spring at some fertile and sheltered spot, where the ranchero desired to locate his dwelling and make his stock corrals; which contentions were generally settled by arbitration or by order of the governor.

The board of land commissioners, appointed under the act of the 3d of March, 1851, "to ascertain and settle the private land claims in California," not only passed upon the validity of the original titles presented before them for confirmation, but they undertook in their court room the impossible task of establishing the boundaries, and

definitely locating the tracts of land, the titles to which they had confirmed. This they attempted through the media of rude and often incorrect translations, of vague original title papers, and the badly interpreted testimony of illiterate and sometimes dishonest witnesses. It is needless to comment on the practical results of such a course of proceedings. When we consider that the description calls of the original title papers of these Spanish or Mexican grants are generally so vague that they can only be ascertained by a careful examination on the ground, it does not seem strange that the location and boundaries thereof, as established by the land commission in the manner above described, were often ambiguous, incorrect, and *impossible*. Under these decrees this office has been required to locate these ranchos by surveys in the field. A majority of these claims were surveyed before lands in California were considered to be of any great value; the work was often done hurriedly, and sometimes by inexperienced deputies who had no data to guide them save the calls of the decrees of confirmation and the rude *diseños* referred to therein; hence, in many cases the ranchos were not located in accordance with the *intention* of the original title papers. This has been, and will be for a long time to come, productive of many unfortunate results, giving rise to vexatious and expensive litigation, and greatly retarding the settlement and prosperity of the country. The harm already done cannot now be altogether remedied, but it may teach a lesson that will prompt a wiser course in the future under circumstances of a similar character.

Another cause contributing to delays in these matters is this: For many years the claimants of ranchos were required to advance the expenses attending the surveys of the same. In cases where they felt sure that under the decrees of confirmation they were entitled to more land than they had possession of, and were anxious to eject settlers who were located thereon, it was to their interest to have their lands surveyed as speedily as possible; but in many cases they claimed and occupied more land than they were strictly entitled to, and hoped, in view of the vagueness and ambiguity of the descriptions given in the original title papers, to be able to include within their surveys, when made, all the lands thus claimed.

As time passes the face of the country is changed, and landmarks often become obliterated, and witnesses who were familiar with landmarks that existed and events that occurred fifty years ago no longer exist. So what might easily have been ascertained a score of years since is much more difficult at present, and in a few years more may become quite impossible. Hence, in many cases, it has been to the interest of the claimants of ranchos to postpone as long as possible the survey of the lands owned by them, or the final disposition of a survey heretofore made. This difficulty now, however, no longer exists since the government furnishes the means required to make these surveys; requiring the claimants before receiving patent to reimburse the United States for the expense of survey.

Another source of embarrassment may be mentioned in this connection. Many of the large ranchos in California have been divided into small tracts and sold, some before the claims were confirmed, and others before surveys were made. In some cases separate claims for the portions sold were presented before the land commission, while no claim was presented for a confirmation of the whole rancho as an *entirety*, and as the descriptions given in these early deeds of conveyance of the different parcels sold were often very imperfect, and sometimes conflicting, much confusion was the result, and the same may be said with relation to ranchos that have been subdivided and sold before the boundaries thereof have been established by affirmed surveys.

Many of the owners of the small tracts sold know but little of the history of the title under which they hold, and most of such owners give but little thought to the subject, on the principle that "what is everybody's business is nobody's business." In such cases matters are likely to remain in this unsettled condition until the boundaries of the ranchos are definitely settled by the government independently of and without regard to the owners of the land.

I am making every effort in my power to dispose of the cases now before this office with all possible dispatch, many of which have been lingering for years greatly to the detriment of the best interests of the country. I shall also cause to be surveyed, as soon as practicable, all tracts where the work has not already been done.

The final adjustment of the boundaries of these Spanish grants is of paramount importance to the prosperity of the country, since until this is done there will always be some question in relation to the public lands adjoining the same.

There are many men of families and small means in this country who are seeking homes, and there are many small valleys in the neighborhood of ranchos, the boundaries of which are unsettled, where the man of humble means might make a comfortable home for his family, but which he cannot do so long as the boundaries of the neighboring ranchos remain unsettled.

For the foregoing reasons the final settlement of these matters should be pressed with all possible energy by every department of the government having jurisdiction over the same.

I desire to call attention to the original archives pertaining to the former Spanish and Mexican Governments of the country. These archives consist of nearly three hundred manuscript volumes in which is found the history of the country from the time Spaniards settled here in 1769 to the arrival of the Americans in 1846. These records, although they do not directly relate to land grants, are notwithstanding historically valuable as giving an account of the first settlement of the country, and interesting as being the record of a race that will soon be forgotten in this land of their fathers. These historic volumes are kept in substantial wooden cases in the commodious apartment provided by the government for the Spanish archives of this office, and are in a reasonably safe condition. There are besides these historic records the original records of all the grants of land made by the Spanish and Mexican Governments of the country. These old papers are not in so secure a condition as their importance and value demand. A substantial fire-proof safe should be provided for their keeping, since, if they should be destroyed by fire or otherwise, their loss could never be repaired. As it is they are entirely unprotected save by the ordinary wooden door of the office in which they are kept. I would therefore suggest that a substantial fire-proof safe be at once provided for the protection of these valuable old records. An appropriation of \$1,800 is necessary for this purpose. * * * I deem it proper to state also that there is evidence which goes to show that the commission and courts were imposed upon in some of the private land claims confirmed by spurious and forged papers. The courts, however, have decided that the matter cannot now be inquired into again without an act of Congress.

The courts, however, have decided that the matter cannot now be inquired into again without an act of Congress.

Such evidence as this office has will be furnished to you in another communication so that should you deem it advisable Congress may be asked for proper legislation.

The following is a list of the private land claims in California which have been patented :

Agua Caliente, F. Higuera.
Acalanes, Elam Brown.
Arroyo Chica.
Aguas Frias.
Atascadero.
Arroyo Seco.
Aromitas y Agua Caliente.
Arroyo Seco.
Asuncion.
Agua Caliente (part).
Agua Puerca y las Francas.
Arroyo Grande.
Aguajito.
Addition to Santa Ana del Chicco.
Agua Hedionda.
Aguaje de la Centinella.
Addition to San José.
Arroyo de San Antonio.
Azusa (Dalton).
Apteos.
Arroyo de la Alameda.
Azusa (Duarte).
Buenaventura.
Blucher.
Bodega.
Bolsa del Pajaro.
Bolsa del Potrero y Moro Cajo.
Barranca Colorado.
Bosquejo.
Bolsa de San Cayetano.
Boga.
Bertano.
Bolsa de Chemisal.
Buena Vista.
Buri Buri.
Bolsa Nueva y Moro Cajo.
Bolsa de San Felipe.
Ballona.
Bolsa de Escorpinos.
Catate.
Cañada del Rincon.
Corte de Madera.

Cañada de la Segunda.
Cuati.
Cañada de Raimundo.
Capay.
Chimiles.
Cañada de los Pimos.
Campo de los Francens.
Callayomi.
Cañada de Pala.
Casmalia.
Corte de Madera de Novato.
Cañada de Capay.
Cholame.
Catacula.
Cañada de Guadalupe and Visitacion y Rodeo Viejo.
Corral de Tierra.
Cañon de Santa Ana.
Cañada del Corral.
Cabeza de Santa Rosa.
Cañada de San Felipe y las Animas Castac.
Cañada del Hambre y las Bolsas.
Corral de Piedra.
Consumnes.
Cosumnes.
Cienega de los Paicenes.
Colus.
Chualar.
Cucamonga.
Corral de Tierra.
Cañada Larga y Verde.
Cañada de los Coches.
Cienega ó Paso de la Tijera.
Cañada de la Carpenteria.
Cañada de San Vicente y Mesa del Padre Baron.
Cañada de las Osos.
Cañada de San Miguelito or Del Diablo.
Cañada de los Alisos.
Cahuenga.
Cuyamaca.

Caslamayomi.
 City lands of Los Angeles.
 Corral de Tierra.
 Calleguas.
 Cañada de Jonior.
 Cañada de Pogolimi.
 Cienega del Gabilan.
 Cañada de los Capitancillos.
 Corral de Quati.
 Cañada de Herrerad.
 Cuyama (5 league).
 Del Paso.
 Dos Pueblos (Deu).
 El Pescadero.
 El Molino.
 Esquon.
 El Chorro.
 El Toro.
 El Valle de San José (Suñol *et al*).
 El Pescadero.
 El Piojo.
 El Sur.
 Entre Napa (part), N. Coombes.
 Napa (part), Osborne.
 El Alisal, Bernal.
 El Paraje de Sanchez.
 El Tucho.
 El Pescadero.
 El Pinale.
 El Rincon.
 El Conejo.
 El Eucino.
 El Niguel.
 El Pumer Cañon ò Rio de los Berrendos.
 Ex Mission Soledad.
 Ex Mission San Fernando.
 Ex Mission San Buenaventura.
 El Cajon.
 El Patrero de Santa Clara.
 Estero Americano.
 Encinal de Buena Esperanza.
 El Escorpion.
 El Qucho (2 Suertes).
 El Chamisal (Vasquez).
 Feliz.
 Guesesosi.
 Guenoc.
 Guadalupe.
 Guejito.
 Guadalupe (Olivera).
 Guadalupe.
 Guajome.
 German.
 Guilicos.
 Huichica.
 Honcut.
 Huehuero.
 Huerta de Romaldo, or El Chorro.
 Island of Santa Cruz.
 Island of Santa Catalina.
 Island of Santa Rosa.
 Johnson Rancho.
 Jota.
 Jacinto.
 Jimeno.
 Jamacho.
 Jesus Maria.
 Juristae.
 Jerupa (Roubideau).
 Jamul.

Las Pulgas.
 Larkin's Children.
 Los Coches.
 Lots in Mission Santa Clara and Dolores.
 Lots in Mission San José.
 Lots in Mission San Francisco.
 Los Putos.
 Laguna.
 Los Flores.
 Llano de Buena Vista.
 Las Uvas.
 La Polka.
 Llano Seco.
 Los Corralitos.
 Los Carneros.
 Localloyome.
 Las Putos.
 Los Capitancillos.
 La Galleta.
 Llano de Santa Rosa.
 Laguna Seca.
 Laguna Seca.
 La Cañada Verde y Arroyo de la Carissima.
 Las Baulines.
 Los Tularcitos.
 La Cañada.
 La Carbonera.
 Los Ulpinos.
 Lot in Sonoma.
 Los Carneros.
 Los Laureles.
 Lonurias Muertes.
 Los Alamos y Agua Caliente.
 Las Salinas.
 La Puente.
 La Laguna.
 Los Meganos.
 La Laguna.
 Los Cerritos.
 Lomas de Santiago.
 Las Talenas.
 La Laguna de las Calabazas.
 Laguna de la Merced.
 La Laguna.
 Las Medanos.
 La Habra.
 Los Animas.
 La Brea.
 La Carbonera.
 Lompoc.
 La Ballona.
 Los Gatos or Santa Rita.
 Los Tulareitos.
 Los Juntas.
 Lot in Mission San Gabriel.
 Lomas de la Purificacion.
 Los Encinitos.
 Los Laureles.
 Los Feliz.
 Los Ojitos.
 Las Cienegas.
 Lot in San Gabriel.
 Lot in San Gabriel.
 Lot in San Gabriel.
 Las Milpitas.
 La Merced.
 La Purisima Concepcion.
 Laguna de San Antonio.
 Llano de Tequisquita.
 Las Positos.

- Lac.
 La Ballona.
 La Balsa Chica.
 Las Bólsas.
 La Natividad.
 La Suèrra (Yerba).
 Los Alamos.
 Los Prietos y Najalayegua.
 Los Coyotes.
 Las Milpitas.
 Las Vergales.
 La Liebra.
 Los Alamitos.
 Los Penasquitos.
 Los Huecos.
 La Zaca.
 Las Mariposas.
 La Jota.
 Los Dos Pueblos.
 La Sierra.
 Las Balsas (Neurillo).
 Malacomes (part).
 Monte del Diablo.
 Mission San Luis Obispo.
 Mission Santa Cruz.
 Mission San Miguel.
 Mission El Carmelo.
 Mission San Rafael.
 Mission La Soledad.
 Mission San Gabriel.
 Mission San Gabriel.
 Mission San Juan Capistrans.
 Mission Viejo or La Paz.
 Mallacomes or Moristal y Plan de Agua Caliente (Berreyesa).
 Mission Viejo de la Purisima.
 Muscupiahe.
 Monserrate.
 Malacomes or Moristal y Plan de Agua Caliente (Knight *et al.*).
 Mission Santa Clara (Enwright).
 Mission San Diego.
 Moro y Cayucos.
 Nicasio (part).
 Nicasio (part).
 Nicasio (part).
 Nicasio (part).
 Noche Buena.
 Nacional.
 Navato.
 Nuestra Señora del Refugio.
 Nipoma.
 Napa (N. Coombes).
 Napa (Osborne).
 Napa (L. Bartlett).
 Napa (J. K. Rose).
 Napa (S. Vallejo).
 Najogue.
 Napa, part of (Coombes).
 Napa (Salvador Vallejo).
 Napa (A. L. Boggs).
 Ojo de Agua de la Cache.
 Olompoli.
 Orestimba.
 Omochumnes.
 Ojai.
 Otay (Estudillo).
 Otay (Dominguez *et al.*).
 Ojo de Agua de Figueroa).
 Punta del Ano Nuevo.
 El Pescadero.
 Potrero Grande.
 Pauba.
 Punta de los Reyes; Snook; Randall.
 Punta de los Reyes (Osis).
 Punta de la Conception.
 Punta (Rancho del).
 Posa de los Ositos.
 Pastoria de los Borregas.
 Potrero de los Cerritos.
 Paso de Robles.
 Potrero de San Juan Capistrano.
 Pala.
 Pismo.
 Panoche de San Juan y los Carrisolitas.
 Paso de Bartelo (Guiraldo).
 Peninsula of San Diego.
 Punta de la Laguna.
 Potrero de San Luis Obispo.
 Potrero de Felipe Lugo.
 Pauma.
 Pleyto.
 Pueblo lands of Santa Barbara.
 Providencia.
 Petaluma.
 Prospero tract.
 Potrero de Santa Clara.
 Punta de Quintin.
 Pueblo lot No. 6.
 Piedra Blanca.
 Quito.
 Rincon de las Salinas y Potrero Viejo.
 Roblar de la Miseria.
 Rincon de los Carneros.
 Rio de Jesus Maria.
 Rio de los Molinos.
 Rio de los Putos.
 Refugio.
 Rincon de los Gatos.
 Rincon de Sanjon.
 Rio del Stanislaus.
 Rio de los Americanos.
 Rancho de Farwell.
 Rancho de la Nacion.
 Rincon de Musulacon.
 Ranchita de Santa Fé.
 Rio de Santa Clara.
 Rincon de los Esteros.
 Real de los Aguillas.
 Rincon de las Bueyes.
 Rincon del Diablo.
 Rinconada del Arroyo de San Francisquita.
 Rincon de los Esteros.
 Rincon de los Esteros (White).
 Suisun.
 San Mateo.
 San Antonio (part).
 San Antonio (part).
 Satoyome.
 Solis.
 San Pedro.
 San Felipe Ausaymas.
 Sausal.
 Shoguel.
 Shoguel Augmentation.
 San Geronimo.
 Santa Ana y Quien Sabe.
 San Juan.
 Sanel.
 San José.
 San Gregorio.
 San Gregorio.

Salsipuedes.
 Santa Margarita.
 San Luisita.
 Sancito.
 San Pascual.
 San Leandro.
 San Lorenzo.
 Santa Rita.
 San Ramon.
 Santa Rosa.
 San Simeon.
 San Bernardo.
 Sanjon de los Moquelumnes.
 Simi.
 San Vicente.
 San Miguel.
 Suey.
 San Juan Bautista.
 San Justo.
 San Bernardino.
 San Pedro, Santa Margarita, &c.
 San Ramon.
 San Emidio.
 Santa Ysabel.
 San Lorenzo.
 San Antonio.
 San José de Buenas Ayres.
 San Agustin.
 San Antonio, ó El Pescadero.
 San Antonio.
 Santa Anita.
 Sisquoc.
 Santa Teresa.
 San Francisquito.
 San Miguelito.
 San Joaquin.
 San Ysidro.
 Sobrante de San Jacinto.
 San Francisco de las Llagas.
 San Vincente.
 San Francisquita.
 Santa Manuela.
 San Ysidro.
 Santa Ana del Chino.
 San Benito.
 San Marcos.
 Santa Rosa.
 San Carlos de Jonata.
 San Pablo.
 San Bernabe.
 San Miguel.
 San Julian.
 Santa Fé, ranchita.
 Santa Clara del Norte.
 San Lorenzo.
 Suerte en Dolores.
 Santa Gertrudes.
 San Pedro.
 San Lorenzo.
 Santa Ana.
 San Diegito.
 San Luis Gonzaga.
 San Antonio, Rodeo de los Aguas y.
 Santa Paula y Saticoy.

San Lucas.
 Sespe.
 Santa Rosa.
 Santa Ysabel.
 San Joaquin.
 San Antonio.
 San Bernarbe.
 San José.
 San Francisco. }
 San Francisco.† }
 Santa Rita.
 San Andres.
 Sanjones.
 San Vicente (Berreyesa).
 Santa Clara (tract near).
 San Geronimo.
 San Miguelito.
 San Lorenzo (Soto).
 San Antonio, D. and V. Peralta.
 San Juan(a), Cajon de Santa Ana.
 Santa Gertrudes (Colima).
 Thompson's rancho.
 Tzabaco.
 Temecula.
 Tulucay.
 Tejon.
 Tomales y Baulines.
 Tres Ojos de Agua.
 Tract in Monterey County.
 Tolenas.
 Teguepis.
 Temecula.
 Tajanta.
 Tract of land near San Juan Bautista.
 Tract in Monterey County.
 Tepequet.
 Tinaguac.
 Two tracts in Santa Clara County.
 Tract in San Gabriel.
 Tract in Mission San Gabriel.
 Temescal.
 Two Suertes (part of El Queho).
 Tract between San Jacinto and San Geronio.
 Tofranga, Malibu, Sequit.
 Tajunga.
 Tract near San Gabriel (Simeon).
 Todos Santos y San Antonio.
 Tract near San Juan Bautista.
 Tract near Santa Clara.
 Ulistac.
 Vieja del Rio del Pajaro.
 Valle de San Felipe.
 Valle de Pauma, or Santa Maria.
 Valle de San José, el (Sunol *et al.*).
 Yerba Buena Socayre.
 Yajome.
 Yokaya.
 Zayanta.
 Zanjones.
 Rincon de las Salinas (Estrada).
 Arroyo de los Nueces y Bolbones.
 Sanjon de Santa Rita.

List of California private land claims before the department at Washington June 30, 1878.

Rancho.	Confirmer.	When sent up.
Punta de Pinios	Leese	May 6, 1876.
Cabeza de Santa Rosa	Mallagh	June 10, 1860.
Do	Meyer & Isham	June 4, 1869.
Do	Hendley	Apr. 4, 1866.
Do	Eldridge	June 19, 1860.
El Rincon	Yerba	Oct. 14, 1875.
Dorsey tract, Los Angeles County	Aguilar	Apr. 17, 1876.
Boca de Santa Monica	Reyes	May 2, 1876.
Cañada de los Nogales	Aguilar	May 16, 1876.
Corte de Madera del Presidio	Reed	Apr. and June, 1877.
Santa Margarita y las Flores (Pico) .....	.....	Aug. 15, 1877.
Monterey City lands .....	.....	Jan. 5, 1869.
Laguna de los Palos Colorados .....	.....	Dec. 20, 1877.
Buena Vista (Machado) .....	.....	Feb. 15, 1871.
Pueblo San Francisco .....	.....	Nov. 15, 1877.
Las Camaritas	Vassault	Feb. 14, 1878.
Las Virgenes	Machado	Nov. 20, 1877.
Cuca, or El Potrero .....	.....	May 6, 1876.
Part of Napa (Thompson) .....	.....	May 12, 1876.
Jan Jacinto	Estudillo	June 15, 1877.
San Jacinto Nuevo y Potrero .....	.....	Oct. 13, 1877.
El Alisal .....	.....	Sept. 1, 1877.
Los Sancos	Thomas	Apr. 18, 1857.
Milpitas	Alvisa	July 7, 1870.
Carne Humana	Bell	May 13, 1876.
Huasna	Sparks	June 29, 1874.
Valle de San José	Warner	Jan. 24, 1877.
Posolmi el Porito de las Animas .....	.....	Nov. 8, 1866.
Miramontes or Arroyo de los Pilarcitos .....	.....	Feb. and June, 1876.
Boca de la Playa	Vejar	Jan. 31, 1876.
Mission San Buenaventura	Aleman	Oct. 24, 1867.
Corral de Piedra	Villavicencia	Aug. 29, 1866.
Cuyama (eleven leagues)	Lataillade	Apr. 23, 1867.
Panoche Grande	Gomez	Sept. 11, 1862.
Nueva Helvetia	Sutter	May 18, 1866.
Mission la Purisima	Malo	Feb. 12, 1878.
Los Palos Verdis	Sepulveda	July 13, 1877.
Mission Santa Ynez	Aleman	Oct. 24, 1867.
San Rafael	Berdugo <i>et al.</i>	Feb. 14, 1871.
Entre Napa	Higuera .....	.....

Private land claims before the U. S. surveyor-general for California June 30, 1878. (Surveyed and pending on resurvey.)

Arroyo del Rodeo, J. Hames *et al.*
 Los Coches, Soberanel.
 Cienequita, Carrillo.
 San Pasqual, Wilson.
 Arroyo de la Laguna, Williams.
 Orchards San José, Foster & McKinley.
 Boca de Cañada del Pinole.
 Napa (part), N. Coombes.
 Pueblo of San José.
 Santiago de Santa Ana.
 San Ramon, Peralta.
 San Ramon, La Norris.
 Saucelito, Richardson.
 Lot in Mission Dolores, Bernal *et al.*

Yosemite, or Big Trees.
 Pastoria de las Borregas, Castro.
 City of Sonoma.
 Sontajulle.
 Russell tracts, Monterey County.
 Napa, Frank.
 Cañada de los Vaqueros.
 Mission Dolores (de Haro).
 Entre Napa, Kilburn.
 Agua Caliente, Leavenworth.
 Mission Dolores, Santa Clara.
 Agua Caliente, Stone.
 San Vicente y Santa Monica.
 Boca de Santa Monica.

MINES.

During the year a large number of mines have been surveyed and approved by this office and the plats filed in the local land offices and delivered to claimants.

There should be some legislation by Congress fixing the time within which claimants should apply for patents in the United States Land Office after their surveys are approved; and after the due advertisement the claimant should be required to enter and pay for the land surveyed in his claim.

There are many surveys made of mining claims in California, and all the steps taken required by law, except paying for the land in the local land office, the claimants neglecting or omitting to enter and pay for the land, relying upon the proceedings already taken as being all that is necessary. Adverse claims are made to the same ground and endless litigation is inaugurated between the claimants, all of which could be

avoided if Congress would enact a law that the land must be paid for in six months or one year after the last publication of the application.

Some instructions should be issued requiring the register of the land office to notify this office when entry of a mine is made, and also when the patent is issued, as cases are occurring where mines are surveyed a second time by this office on the supposition that the mine had been subject to relocation, when, in fact, the entry had been made and papers sent to your department for patent without the knowledge of this office.

In case of the Empire, Crescent, Lady Alice, and Bunker Hill mines, in Mono County, the claimants, as they supposed, complied with the act of July, 1866, and omitted to pay for the land. New locations were made and patents issued to these mines under the act of 1872 before the claimants under the act of 1866 came forward and offered to pay for their land. The result is, suits to set aside the United States patents and to recover possession of the mines, now very valuable. The junior claimant acted, no doubt, honestly, and complied with the law in every respect in procuring his patents, and now finds his title clouded by the old claims.

MINERAL SURVEYORS.

The following have been appointed United States deputy mineral surveyors under the provisions of section 2334 of the Revised Statutes, each having filed a bond of \$10,000:

R. M. Wilson, San Francisco.
A. A. Smith, Susanville.
L. L. Hawkins, Oakland.
J. E. Jackson, Los Angeles.
F. S. Ingalls, Salinas City.
A. T. Herrmann, San José.
A. B. Beauvais, Columbia.
Thomas Creighton, Visalia.
John Doherty, Oakland.
P. Y. Baker, Visalia.
H. S. Bradley, Nevada City.
E. C. Uren, Dutch Flat.
John A. Brown, Sutter Creek.
William Magee, Shasta.
E. T. Wright, Los Angeles.
A. W. Keddie, Quincy.
William Jabine, Placerville.
W. S. Lowden, Weaverville.

R. B. Thomas, Mariposa.
C. W. Hendel, La Porte.
Samuel Bethel, Grass Valley.
C. L. Anderson, Bodie.
John Goldsworthy, Los Angeles.
A. L. Cox, Santa Rosa.
J. E. Woods, San Francisco.
J. B. Hiskey, Bodie.
James McGann, Chico.
L. F. Cooper, Crescent City.
T. R. Fillebrown, Bakersfield.
D. C. Hall, Quincy.
Thomas W. Reece, Oroville.
Charles Kaufmann, San Francisco.
J. M. Doyle, Colusa.
C. J. Fox, San Diego.
H. J. Stevenson, Los Angeles.

COPIES OF RECORDS, SALARY OF SURVEYOR GENERAL, ETC.

I desire to call attention to the provisions of section 2224 of the Revised Statutes, which provides that any copy of or extract from the plats, field notes, records, or other papers on file in the offices of the surveyors general for California, Oregon, and Louisiana, respectively, when authenticated by the seal and signature of the proper surveyor general, shall be evidence in all cases in which the original would be evidence.

Certified copies of the records and plats of this office and of the Spanish archives in my custody are frequently required by private parties.

The section of the Revised Statutes last above referred to clearly implies that such copies should be furnished by me.

It seems also reasonable, however, that the parties desiring such copies should pay the cost of preparing them. Should this office be required to furnish them without charge, three times the force now employed would hardly be sufficient to satisfy the demand. The law is silent as to charges for such work, and I deem it a stretch of authority to make charges not specially authorized by law. As a matter of necessity, however, I issued instructions as follows:

“Whenever certified copies of records or papers of this office are desired by any person, they will, whenever practicable, be prepared by persons designated by this office who are not in the employ of the government, and such persons must furnish their own stationery and materials, and will be allowed to charge for their labor and materials a reasonable compensation, to be paid by the applicant.

“The chief clerk will see that only the actual and reasonable cost of the work is charged.

“Whenever certified copies of records or papers are prepared by regular employes of this office, the work, with a memorandum of the cost thereof, will be delivered to the accountant, who will only deliver the same to the party applying therefor upon the production of a receipt for the amount from the chief clerk.

“The chief clerk will receive said amounts and give receipts therefor, and at the

end of each month deposit the same in the United States sub-Treasury to the credit of the O. W. account of this office.

"THEODORE WAGNER,
United States Surveyor General for California."

Should they meet with your approval, I would nevertheless suggest that Congress be requested to provide proper legislation in the matter, and I would recommend that a provision be added to the law requiring applicants for such copies to pay for the actual cost of the work; the money so received to be deposited in the United States sub-Treasury to the credit of the office work account of this office and reappropriated for the payment of employes performing the work.

The salary of the United States surveyor general for California is fixed by law at \$3,000, but Congress failed to appropriate more than \$2,750 for the ensuing fiscal year. There are no perquisites or fees attached to the office; the duties are very heavy and onerous, and the responsibility great, so that, with the expense of living and rents here, that compensation is scarcely sufficient to enable the incumbent to live decently with a family. Four thousand dollars per annum would not be more than a fair compensation.

PERSONAL.

On the 13th of September, 1877, Henry G. Rollins resigned the office of United States surveyor general for California, and was succeeded on the 17th of October of the same year by General John W. Ames. On the 6th of April, 1878, after several months of painful illness, General Ames departed this life, respected and beloved by all with whom he had come in contact during his brief administration.

The duties of the office were assumed by the present incumbent on the 25th of June, 1878.

Edward D. Knight, an employé of this office for many years, died March 6, 1878, after a prolonged illness.

Very respectfully, your obedient servant,

THEO. WAGNER,
United States Surveyor General for California.

Hon. J. A. WILLIAMSON,
Commissioner of the General Land Office.

A.—Statement of contracts entered into by the United States surveyor general for California, with deputy surveyors, for the survey of public lands, during the fiscal year ending June 30, 1878, and payable out of the public appropriation (\$24,700) for that year.

Name of deputy.	Date of contract.	Location of field work.	Meridian.	Amount of contract.	Returned amount.	Remarks.
J. A. Benson	July 10, 1877	Complete the subdivision of township 9 south, range 22 east; township 9 south, range 23 east; township 10 south, range 22 east.	Mount Diablo ..	\$900 00	.....	
S. A. Hanson	July 10, 1877	Complete the subdivision of township 25 south, range 47 east; township 26 south, range 47 east; township 27 south, range 47 east; township 28 south, range 47 east; township 29 south, range 47 east; township 30 south, range 47 east; township 31 south, range 47 east; township 32 south, range 47 east; township 17 north, range 8 west; township 18 north, range 8 west; township 17 north, range 9 west; township 18 north, range 9 west.	do	2, 200 00	.....	
J. R. Glover	July 11, 1877	Complete the subdivision of township 8 south, range 22 east; township 8 south, range 23 east; township 9 south, range 20 east; township 9 south, range 21 east; township 10 south, range 21 east.	do	2, 000 00	\$2, 479 52	Plats and field notes transmitted; account closed.
William H. Norway	July 14, 1877	Complete the subdivision of township 4 north, range 19 west; township 4 north, range 20 west; township 4 north, range 21 west; township 4 north, range 22 west; township 5 north, range 22 west; township 5 north, range 23 west; township 5 north, range 24 west.	San Bernardino.	1, 000 00	1, 011 03	Do.
L. D. Bond	July 14, 1877	Complete the subdivision of township 20 north, range 8 east; townships 24, 26, and 27 north, range 5 east.	Mount Diablo...	1, 900 00	1, 762 39	Do.
E. J. Cahill	July 16, 1877	Complete the subdivision of township 37 north, range 6 west; township 37 north, range 7 west; township 38 north, range 7 west.	do	1, 500 00	1, 301 43	Do.
M. F. Reilly	July 18, 1877	Complete the subdivision of township 5 south, range 7 east; township 5 south, range 8 east.	Humboldt	850 00	858 11	Do.
James E. Woods	July 18, 1877	Township 17 north, range 12 west. Complete the subdivision of township 17 north, range 16 west; township 12 north, range 8 west; township 13 north, range 8 west.	Mount Diablo .......do	 200 00	.....	Plats and field notes transmitted.
William J. Servis	July 18, 1877	Complete the subdivision of township 17 north, range 1 east.	Humboldt	207 41	207 41	Plats and field notes transmitted; account closed.
Do	July 18, 1877	Extend the third standard line north of Humboldt base line along south boundary of township 16 north, of range 1 east; also complete the subdivision of township 16 north, range 1 east.	do	864 00	828 38	Do.

A.—Statement of contracts entered into by the United States surveyor general for California, &c.—Continued.

Name of deputy.	Date of contract.	Location of field work.	Meridian.	Amount of contract.	Returned amount.	Remarks.
W. F. Benson	July 20, 1877	Complete the subdivision of township 35 north, range 17 east; township 36 north, range 17 east; township 37 north, range 17 east; township 40 north, range 17 east; township 41 north, range 17 east; township 42 north, range 17 east; township 36 north, range 11 east; township 36 north, range 12 east; township 36 north, range 13 east; township 36 north, range 14 east; township 39 north, range 15 east; township 40 north, range 15 east; township 41 north, range 15 east; township 42 north, range 15 east.	Mount Diablo...	\$2, 300 00	\$2, 919 63	Plats and field notes transmitted; account closed.
John Gilcrest	July 24, 1877	Complete the subdivision of township 18 south, range 2 east; township 18 south, range 3 east; township 18 south, range 4 east.	do	1, 000 00	1, 021 66	Do.
William H. Carlton	Aug. 1, 1877	Complete the subdivision of township 27 south, range 40 east; township 28 south, range 40 east.	do	857 00	852 08	Do.
Do.	Aug. 2, 1877	Complete the subdivision of township 27 south, range 41 east; township 28 south, range 41 east.	do	899 00	892 39	Do.
William Minto	Aug. 4, 1877	Complete the subdivision of township 40 north, ranges 1 and 2 west; township 38 north, ranges 2 and 3 west; township 39 north, ranges 2 and 3 west.	do	1, 400 00	1, 898 54	Do.
J. M. Anderson	Aug. 7, 1877	Complete the subdivision of township 9 north, range 17 east; township 10 north, range 17 east; township 11 north, range 16 east.	do	1, 000 00	1, 672 86	Do.
M. F. Reilly	Sept. 24, 1877	Complete the subdivision of township 20 north, range 12 west; township 21 north, range 12 west; township 24 north, range 17 west; township 22 north, range 16 west.	Mount Diablo...	1, 350 00	1, 680 89	Do.
Thomas Creighton	June 26, 1878	Township 4 south, range 8 east	Humboldt .....	.....	.....	
W. F. Benson	June 27, 1878	Survey township 20 south, range 14 east	Mount Diablo...	500 00	.....	
		Survey township 23 north, range 8 west; township 6 south, range 20 east; township 7 south, range 22 east.	do	1, 400 00	.....	

B.—Statement of contracts entered into by the United States surveyor general for California with deputy surveyors, for the survey of public lands, during the fiscal year ending June 30, 1878, and payable from special deposits made in conformity with the act of March 3, 1871.

Name of deputy.	Date of contract.	Location of field work.	Meridian.	Amount of contract.	Returned amount.	Name of depositor.	Remarks.
J. R. Glover	July 10, 1877	Complete the subdivision of township 7 north, range 21 east.	Mount Diablo	\$800 00	\$742 22	C. B. Gregory et al	Plats and field notes transmitted; account closed.
Do	July 11, 1877	Complete the subdivision of township 24 north, range 14 west.	do	450 00	348 74	James Pulman et al ..	Do.
A. A. Smith	July 12, 1877	Complete the subdivision of township 29 north, range 12 east.	do	450 00	362 20	Le Roy Perkins et al ..	Do,
L. D. Bond	July 10, 1877	Complete the subdivision of township 19 north, range 8 east; townships 18 and 19 north, range 9 east; township 19 and 20 north, range 10 east; townships 19, 20, and 21 north, ranges 11 and 12 east; townships 16 and 18 north, range 13 east; townships 13, 14, 15, and 16 north, range 15 east; townships 13, 14, and 15 north, range 16 east.	do	9,000 00	5,786 99	Central Pacific Railroad Company.	.
S. A. Hanson	July 16, 1877	Complete the subdivision of township 4 south, range 3 east; township 5 south, range 3 east; township 5 south, range 4 east; township 5 south, range 5 east; township 5 south, range 6 east; township 5 south, range 7 east; township 6 south, ranges 4 and 5 east; township 2 north, range 10 east; township 1 north, range 1 east.	do	2,000 00	.....	Western Pacific Railroad Company.	Time extended to January 1, 1879.
James E. Woods	July 10, 1877	Complete the subdivision of township 22 north, range 14 west.	do	586 00	590 85	N. W. Ward et al	Plats and field notes transmitted; account closed.
J. R. Glover	July 18, 1877	Complete the subdivision of township 22 north, range 15 west.	do	200 00	157 14	Jasper Glover	Do.
James E. Woods	July 10, 1877	Complete the subdivision of township 20 north, range 14 west.	do	550 00	588 45	Shelby Bishop et al ..	Do.
W. F. Benson	July 23, 1877	Survey of the exterior lines and complete the subdivision of the uplands in fractional townships 1, 2, 3, 4, 5, and 6 north, ranges 3, 4, and 5 east, and fractional townships 2 and 3 north, ranges 1 and 2 east; also fractional townships 1 and 2 north, range 6 east, and fractional township 1 south, ranges 3, 4, 5, and 6, east, and meander both banks of the Sacramento, San Joaquin, Mokelumme, and Calaveras Rivers and navigable channels thereof in said townships.	do	5,000 00	.....	.....	Time extended to Jan. 1, 1879.

B.—Statement of contracts entered into by the United States surveyor general for California with deputy surveyors, &c.—Continued.

Name of deputy.	Date of contract.	Location of field work.	Meridian.	Amount of contract.	Returned amount.	Name of depositor.	Remarks.
J. R. Glover	Aug. 13, 1877	Complete the subdivision of township 16 north, range 11 west.	Mount Diablo.	\$550 00	\$479 55	David Carson et al.	Plats and field notes transmitted; account closed.
Do.	Aug. 13, 1877	Complete the subdivision of township 17 north, range 14 west.	do	450 00	.....	B. F. McCracken et al.	Plats and field notes transmitted.
Do.	Aug. 13, 1877	Complete the subdivision of township 7 north, range 22 east.	do	100 00	69 89	T. Monroe	Plats and field notes transmitted; account closed.
M. F. Reilley	Aug. 14, 1877	Complete the subdivision of township 20 north, range 13 west.	do	900 00	.....	.....	.....
Do.	Aug. 15, 1877	Complete the subdivision of township 23 north, range 7 west; township 24 north, range 7 west; township 25 north, range 8 west; township 26 north, range 7 west; township 26 north, range 8 west; township 26 north, range 9 west.	do	5,000 00	.....	California and Oregon Railroad Company.	Portion of account transmitted.
Do.	Aug. 16, 1877	Complete the subdivision of township 21 north, range 13 west.	do	600 00	580 33	J. W. Johnson et al.	Plats and field notes transmitted; account closed.
S. A. Hanson	Aug. 15, 1877	Complete the subdivision of township 27 north, range 8 west; township 28 north, range 8 west; township 29 north, range 8 west; township 30 north, range 8 west; township 31 north, range 8 west; township 27 north, range 9 west; township 28 north, range 9 west; township 29 north, range 9 west; township 30 north, range 9 west; township 29 north, range 6 west.	do	5,000 00	.....	.....	Time extended to January 1, 1879.
John Goldsworthy	Aug. 18, 1877	Complete the subdivision of township 6 north, range 14 west; township 6 north, range 15 west.	San Bernardino	260 00	71 99	Tho'e Delano et al.	Plats and field notes transmitted; account closed.
J. R. Glover	Aug. 18, 1877	Complete the subdivision of township 22 north, range 17 west.	Mount Diablo.	800 00	660 54	E. F. Shaw et al.	Do.
Do.	Aug. 22, 1877	Complete the subdivision of township 15 north, range 11 west.	do	450 00	373 04	William B. Harris et al.	Do.
William Minto	Aug. 27, 1877	Complete the subdivision of township 40 north, range 4 west.	do	200 00	196 37	J. H. Sisson et al.	Do.
J. W. Sidlinger	Aug. 4, 1877	Complete the subdivision of township 13 north, range 12 east; township 13 north, range 17 east; township 14 north, range 13 east; township 14 north, range 13 east.	do	5,000 00	.....	.....	Time extended to January 1, 1879.

J. M. Doyle.....	Sept. 18, 1877	range 14 east; township 14 north, range 17 east; township 15 north, range 13 east; township 15 north, range 14 east; township 16 north, range 14 east; township 18 north, range 7 east; township 22 north, range 16 east.	do	103 00	102 25	J. R. Duncan	Plats and field notes transmit- ted; account closed.
Thomas S. Stephens .	Oct. 1, 1877	Complete the subdivision of township 16 north, range 5 west.	Humboldt	402 00	.....	A. G. Cornick et al	
John Goldsworthy ...	Oct. 4, 1877	Complete the subdivision of township 1 south, range 4 east.	San Bernardino	71 50	.....	W. C. Martin	
J. R. Glover	Sept. 24, 1877	Complete the subdivision of township 2 north, range 9 west.	Mount Diablo.	300 00	288 69	Manuel Diaz	Do.
Do.....	Sept. 24, 1877	Complete the subdivision of township 1 south, range 2 west.	do	450 00	.....	S. H. McGun et al	Time extended to January 1, 1879.
Do.....	Sept. 24, 1877	Complete the subdivision of township 2 north, range 3 west.	do	275 00	.....	.....	
A. S. Cooper.....	Oct. 8, 1877	Complete the subdivision of township 5 north, range 29 west.	San Bernardino	66 00	106 91	Henry Doty.....	Plats and field notes transmit- ted; account closed.
M. A. Nurse.....	Oct. 10, 1877	Complete the subdivision of township 10 north, range 3 west.	Mount Diablo.	629 00	104 55	C. V. Fowler et al	Do.
J. W. Sidlinger	Sept. 25, 1877	Complete the subdivision of township 22 south, range 29 east; township 25 south, range 29 east; township 23 south, range 30 east; township 25 south, range 30 east; township 32 south, range 30 east; township 24 south, range 31 east; township 25 south, range 31 east; township 26 south, range 31 east; township 27 south, range 31 east; township 28 south, range 31 east; township 29 south, range 31 east; townships 27 and 28 south, ranges 32 and 33 east.	do	5,000 00	.....	.....	Time extended to September 1, 1878.
L. D. Bond	Sept. 25, 1877	Complete the subdivision of township 9 north, range 18 west; township 10 north, range 18 west; township 9 north, range 16 west; township 10 north, range 16 west; township 11 north, range 16 west; township 12 north, range 16 west; township 9 north, range 17 west; township 10 north, range 17 west; township 11 north, range 17 west; township 12 north, range 17 west; township 10 north, range 15 west; township 11 north, range 15 west; township 12 north, range 15 west.	San Bernardino	3,000 00	.....	.....	Time extended to January 1, 1879.

B.—Statement of contracts entered into by the United States surveyor general for California with deputy surveyors, &c.—Continued.

Name of deputy.	Date of contract.	Location of field work.	Meridian.	Amount of contract.	Returned amount.	Name of depositor.	Remarks.
James E. Woods.....	Oct. 15, 1877	Complete the subdivision of township 16 north, range 14 west.	Mount Diablo	\$30 00	\$36 63	C. F. Edwards.....	Plats and field notes transmitted; account closed.
Do.....	Oct. 16, 1877	Complete the subdivision of township 19 north, range 15 west.	do.....	824 00	823 65	John Huff et al.....	Do.
L. F. Cooper.....	Nov. 10, 1877	Complete the subdivision of township 15 north, range 1 west.	do.....	419 00	288 71	H. Alexander et al.....	Do.
T. J. Dewoody.....	Nov. 12, 1877	Complete the subdivision of township 8 north, range 3 west.	do.....	36 00	.....	Jacinto Berryessa.....	.....
William Minto.....	Nov. 26, 1877	Complete the subdivision of township 20 south, range 8 east.	do.....	186 00	186 00	J. O. Batchelder et al.....	Plats and field notes transmitted; account closed.
A. G. Ruxton.....	Dec. 6, 1877	Complete the subdivision of township 4 south, range 8 west.	San Bernardino	95 00	.....	W. A. Watts.....	.....
M. G. Wheeler.....	Dec. 26, 1877	Complete the subdivision of township 8 south, range 1 east.	do.....	300 00	246 42	James C. Fain et al.....	Plats and field notes transmitted; account closed.
Do.....	Jan. 4, 1878	Complete the subdivision of township 11 south, range 1 east.	do.....	120 00	.....	W. W. Ingraham.....	.....
James E. Woods.....	Jan. 14, 1878	Complete the subdivision of township 20 north, range 15 west.	Mount Diablo	244 00	244 00	William G. Walker et al.....	Plats and field notes transmitted; account closed.
J. R. Glover.....	Jan. 18, 1878	Survey township 4 north, range 27 east, and connect the same with the approved public surveys, that the inhabitants of the town of Bodie may perfect their title to the lands within said town site.	do.....	75 00	75 00	County judge of Mono County.	Do.
D. F. Spurr.....	Feb. 18, 1878	Complete the subdivision of township 12 north, range 9 west.	do.....	250 00	136 50	James Tyler et al.....	Do.
Alexander McKay.....	Mar. 13, 1878	Complete the subdivision of township 44 north, range 7 west.	do.....	407 00	332 00	Horace Knight et al.....	Do.
William Minto.....	Mar. 15, 1878	Complete the subdivision of township 2 south, range 5 west.	San Bernardino	100 00	94 75	H. M. Streeter et al.....	Do.
R. F. Herrick.....	June 26, 1878	Complete the subdivision of township 1 south, range 2 west.	Humboldt.....	108 00	.....	John Welch.....	.....
M. A. Nurse.....	June 26, 1878	Complete the subdivision of township 13 north, range 4 west.	Mount Diablo	486 00	.....	Newton Cain et al.....	Plat and field notes transmitted.
John A. Benson.....	June 27, 1878	Complete the subdivision of township 3 north, range 8 west; township 4 north, range 8 west; township 4 north, range 9 west.	do.....	80 00	.....	Mrs. Sarah Brown et al.....	Portion of account, &c., transmitted.
William Minto.....	June 27, 1878	Complete the survey of township 4 south, range 27 east.	do.....	120 00	.....	A. W. Rose.....	.....
Do.....	June 27, 1878	Survey township 3 south, range 27 east.	do.....	60 00	.....	....do.....	.....
R. K. Nichols.....	June 27, 1878	Survey township 13 north, range 7 west.	do.....	150 00	.....	Gerald E. Ward.....	.....

BB.—Statement of contracts entered into by the United States surveyor general for California, with deputy surveyors, for the survey of private land claims during the fiscal year ending June 30, 1878, and payable out of the appropriation (\$2,000) for the survey of private land claims.

Date of contract.	Name of deputy.	Name of rancho.	Amount of contract.	Returned amount.	Remarks.
February 18, 1878.....	William Minto.....	Survey the rancho Jurupa, finally confirmed to Abel Stearns, situated in San Bernardino County, Cal.	\$600 00	\$866 66	
March 12, 1878.....	do	Survey the rancho Paso de Bartolo, situated in Los Angeles County, Cal., confirmed to Sepulveda.	60 00	.....	Field notes on file.
June 25, 1878.....	James E. Freeman.....	Survey the rancho Arroyo de la Laguna, Williams et al., confirmees, in accordance with the decision of the honorable Secretary of the Interior, dated March 5, 1878.	200 00	.....	Deputy in the field.
June 25, 1878.....	William J. Lewis.....	Survey the Leavenworth tract of the rancho Agua Caliente, in strict accordance with the decision of the honorable Commissioner of the General Land Office, dated February 21, 1878.	100 00	.....	Do.
June 25, 1878.....	J. A. Benson	Survey the Watkins tract and amend the survey of the Vasquez tract of the Soulajulle rancho, in strict accordance with the decisions of the honorable Commissioner of the General Land Office and the honorable Secretary of the Interior, dated June 27, 1877, and April 15, 1878, respectively.	100 00	.....	Do.
June 28, 1878.....	William Minto.....	Survey the rancho El Sobrante as finally confirmed to J. J. Castro et al....	850 00	.....	Do.

C.—Statement of surveys of mines in California during the fiscal year 1877-'78, made in conformity with the act of Congress approved May 10, 1872.

Approval of survey.	Name of mine.	Location.
July 14, 1877	Alta Hill gravel mine No. 3.....	Nevada County.
Aug. 18, 1877	Altaville quartz mine and mill site	Calaveras County.
Sept. 24, 1877	Ancho quartz mine and mill site.....	Nevada County.
Oct. 27, 1877	Afterthought mine	Shasta County.
Oct. 27, 1877	Allison Ranch Ford mine	Nevada County.
Feb. 2, 1878	Arctic gold and silver mine	Inyo County.
Feb. 2, 1878	Avala placer mine.....	Amador County.
Feb. 12, 1878	Alta San Francisco, Lone View, and New York mines, and slate range mill site.	San Bernardino County.
Mar. 2, 1878	Alexander placer mine	Humboldt County.
July 14, 1877	Bobbie's Blue Ledge mine	Butte County.
July 24, 1877	Bear River tunnel mine	Placer and Nevada Counties.
Oct. 20, 1877	Bullion mine and mill site and ingot mine	San Bernardino County.
Nov. 8, 1877	Ben. Franklin quartz mine	Nevada County.
Nov. 19, 1877	Black Bear gold quartz mine	Trinity County.
Feb. 2, 1878	Boomerange gold and silver mine.....	Inyo County.
Feb. 14, 1878	Blue Peak mine	Napa County.
June 26, 1878	Buchanan quartz mine and mill site	Tuolumne County.
June 26, 1878	Bryant mine.....	Mono County.
June 26, 1878	Black Hawk and McClellan mines.....	
Sept. 15, 1877	Cassidy Consolidated quartz mine	Nevada County.
Feb. 9, 1878	Cabin Flat placer mine	Do.
Mar. 16, 1878	Central and San Francisco mines	Mono County.
Mar. 30, 1878	Canadian quartz mine	San Diego County.
June 26, 1878	Compromise gold quartz mine	Mariposa County.
June 26, 1878	California quartz mine.....	Amador County.
June 26, 1878	Chavanne mine and mill site.....	Calaveras County.
June 26, 1878	Chapanal quartz mine	Tuolumne County.
June 26, 1878	Crown Point mine.....	Plumas County.
Sept. 18, 1877	Duke of Wellington mine and mill site	Alpine County.
Oct. 27, 1877	Demorest quartz mine.....	Calaveras County.
Dec. 6, 1877	Dutch Bar hydraulic mine.....	Plumas County.
Jan. 7, 1878	Dewitt quartz mine.....	Amador County.
Jan. 7, 1878	Druid placer mine	Placer County.
July 9, 1877	Estacha quartz mine	Kern County.
Sept. 14, 1877	Extension placer mine.....	Sierra County.
Nov. 19, 1877	Emigrant gold quartz mine	Siskiyou County.
Dec. 10, 1877	Eclipse silver mine	Inyo County.
Jan. 23, 1878	Empire mine and mill site	Shasta County.
Feb. 2, 1878	Etna quartz mine.....	Tuolumne County.
Mar. 2, 1878	Excelsior mine and mill site	Shasta County.
Mar. 12, 1878	Esperanza gold quartz mine	Calaveras County.
Mar. 30, 1878	Eclipse extension quartz mine.....	Amador County.
June 26, 1878	Excelsior mine.....	Yuba County.
June 26, 1878	Enterprise mine.....	Do.
Mar. 8, 1878	Finley & Doty quartz mine.....	Siskiyou County.
Aug. 7, 1877	Goods Flat quartz mine	Butte County.
Sept. 14, 1877	Guatamala placer mine	Sierra County.
Sept. 25, 1877	Gunsight north extension mine.....	Los Angeles County.
Sept. 25, 1877	Gunsight mine	Do.
Nov. 8, 1877	Golden Bull placer mine.....	Nevada County.
Nov. 19, 1877	Geyser sulphur mine	Sonoma County.
Jan. 18, 1878	Gibbons & Co.'s and Lander, Maak & Co.'s mines	Trinity County.
Mar. 2, 1878	German Ridge mine and mill site	Calaveras County.
June 26, 1878	Gillis & Carrington quartz mine and mill site.....	Tuolumne County.
Sept. 15, 1877	Harmon gold placer mine.....	Trinity County.
Sept. 18, 1877	Highland Mary quartz mine	Alpine County.
Oct. 13, 1877	Horse Shoe Bar placer mine	Humboldt County.
Dec. 31, 1877	Hills sulphuret work site.....	Nevada County.
Jan. 23, 1878	Haley quartz mine.....	Amador County.
Feb. 2, 1878	Helvetia quartz mine and mill site.....	San Diego County.
June 26, 1878	Hussey placer mine.....	Nevada County.
June 26, 1878	Home quartz mine.....	Nevada County.
June 26, 1878	Hidden treasure mine	Kern County.
June 26, 1878	Hartford placer mine.....	Nevada County.
June 26, 1878	Howard placer mine.....	Del Norte County.
June 26, 1878	Indian Valley quartz mine.....	Plumas County.
Aug. 18, 1877	Jamison Creek and Bunker Hill quartz mine and mill site	Do.
Sept. 8, 1877	Jessie and Edith quartz mine.....	Tuolumne County.
Sept. 25, 1877	John F. Boyd mill site	Mono County.
Sept. 8, 1877	Kentuck silver mine.....	Inyo County.
Oct. 13, 1877	Kirkham placer mine	Humboldt County.
Sept. 18, 1877	Lafayette quartz mine.....	Alpine County.
Nov. 8, 1877	Laura quartz mine	Plumas County.
Dec. 6, 1877	Loyal lode mine	Amador County.
Nov. 19, 1877	Lone Star mine.....	Inyo County.
Mar. 8, 1878	Lorenzo placer mine.....	Placer County.
June 26, 1878	Lena mine.....	Kern County.
July 9, 1877	Morell & Watson placer mine	Shasta County.
Aug. 11, 1877	Mill site of the San Francisco mine.....	Nevada County.

C.—Statement of surveys of mines in California, &c.—Continued.

Approval of survey.	Name of mine.	Location.
Aug. 24, 1877	Monitor consolidated quartz mine and mill site	Plumas County.
Sept. 14, 1877	Minniette Belle Mountain View and Keystone silver mine ...	Inyo County.
Sept. 15, 1877	Monterichard quartz mine	Amador County.
Oct. 13, 1877	Montezuma gold quartz mine	Trinity County.
Dec. 21, 1877	Martin & Co., Baistow & Co., and Nash & Co. mines	Trinity County.
Feb. 2, 1878	Mountain View quartz mine	Inyo County.
Feb. 9, 1878	Mount Pleasant placer mine	Sierra County.
Feb. 9, 1878	Moore's Flat placer mine	Nevada County.
Mar. 8, 1878	Modoc, Lookout, Confidence, Keyes & Hearst, mines	Inyo County.
Mar. 20, 1878	Marsh & Kennedy mill site	Kern County.
July 24, 1877	North American placer mine	Placer County.
Dec. 21, 1877	North Gover mine	Amador County.
Jan. 18, 1878	New York quartz mine	Plumas County.
Sept. 8, 1877	Oak Flat, Fueg & Ohl, mine	Plumas County.
Sept. 24, 1877	Orleans placer mine	Humboldt County.
Sept. 24, 1877	Oliver & Holland quartz mine and mill site	Nevada County.
Dec. 21, 1877	Occidental placer mine	Plumas County.
Jan. 18, 1878	Oak Flat oil mine	Ventura County.
June 26, 1878	Occidental placer mine	Placer County.
June 26, 1878	Ohlmeir placer mine	Mariposa County.
June 26, 1878	Oriflamme mine and mill site	San Diego County.
June 26, 1878	Olden mine	Mono County.
July 24, 1877	Pioneer fluming placer mine	Placer County.
Aug. 7, 1877	Placerville placer mine	El Dorado County.
Aug. 18, 1877	Plumas and Jamison Creek mine	Plumas County.
Sept. 8, 1877	Plumas quartz mine	Plumas County.
Dec. 31, 1877	Poclepovich quartz mine	Amador County.
Jan. 18, 1878	Plow Boy quartz mine	Plumas County.
Jan. 23, 1878	Peruvian mine and mill site	Shasta County.
Mar. 12, 1878	Patterson placer mine	Nevada County.
Mar. 20, 1878	Peerless mine	Amador County.
June 26, 1878	Planet placer mine	Nevada County.
June 26, 1878	Pioneer gulch placer mine	Siskiyou County.
June 26, 1878	Popejoy mine	Shasta County.
Aug. 13, 1877	Rocky Bar quartz mine	Calaveras County.
Oct. 13, 1877	Rendall placer mine	Amador County.
Oct. 13, 1877	Richelieu quartz mine	El Dorado County.
Jan. 18, 1878	Rex Montis mine	Inyo County.
Mar. 20, 1878	Robbins Association mine	San Bernardino County.
June 26, 1878	Rencharee placer mine	Mono County.
June 26, 1878	Red Cloud, Packard & Morton mines	Do.
July 9, 1877	Sunrise quartz mine	Kern County.
July 9, 1877	Saint Charles quartz mine	Do.
July 24, 1877	Saronia placer mine	Amador County.
July 24, 1877	Scott & Co. placer and quartz mine	Siskiyou County.
Aug. 13, 1877	Schneider & Co. quartz mine	El Dorado County.
Aug. 18, 1877	Smith quartz mine	Do.
Sept. 15, 1877	Sacramento gold placer mine	Sierra County.
Sept. 25, 1877	Stanard mill site	Mono County.
Oct. 20, 1877	Syndicate mine	San Bernardino County.
Dec. 21, 1877	Sunnyside mine	Plumas County.
Dec. 31, 1877	Shot Gun quartz mine	Calaveras County.
Dec. 31, 1877	Sunnyside No. 2 placer mine	Plumas County.
Jan. 7, 1878	Sunnyside east extension mine	Do.
Jan. 7, 1878	Sunnyside west extension mine	Do.
Feb. 20, 1878	Stonewall, Home Stake, and Ralston Nos. 1 and 2 mines	Mono County.
Mar. 20, 1878	Schroeder placer mine	Mariposa County.
Mar. 30, 1878	Schmidt quartz mine	Nevada County.
June 26, 1878	San Francisco and Excelsior mine	Placer County.
June 26, 1878	Summit quartz mine	Plumas County.
Mar. 12, 1878	Terrace Borat mine	San Bernardino County.
Mar. 30, 1878	Tam quartz mine	Nevada County.
Sept. 18, 1877	Union quartz mine	Alpine County.
Oct. 20, 1877	U. S. Grant placer mine	Placer County.
Oct. 27, 1877	Uncle Abe placer mine	Do.
Sept. 24, 1877	Valparaiso quartz mine	Amador County.
Mar. 20, 1878	Ventura lode mine	Inyo County.
Aug. 24, 1877	Washington west extension quartz mine	Plumas County.
Oct. 8, 1877	Watt blue gravel mine	Nevada County.
Feb. 20, 1878	West bullion mine	Mono County.
June 26, 1878	Washington Hill placer mine	Del Norte County.
June 26, 1878	Wiley petroleum mine	Los Angeles County.
June 26, 1878	Young Harmon quartz mine	El Dorado County.

D.—Statement of number of miles surveyed in California to June 30, 1878.

Name of surveyor.	Date of contract.	Meridian.	Base.	Standard.	Township.	Section.	Meander.	Connections.
Miles surveyed to June 30, 1877, as per last report								
Anderson, James M.	Nov. 14, 1876	Ms. chs. lks. 785 35 53	Ms. chs. lks. 403 61 23	Ms. chs. lks. 5,365 40 04	Ms. chs. lks. 30,791 14 49	Ms. chs. lks. 126,584 62 25	Ms. chs. lks. 2,255 13 35	Ms. chs. lks.
Do	Nov. 14, 1876				12 02 35	118 07 66		
Do	Aug. 7, 1877			0 08 52	18 70 35	124 37 65		
Benson, John A.	Sept. 11, 1876				12 25 30	139 64 12	7 20 66	
Benson, W. F.	May 25, 1877			0 63 20	21 39 75	5 65 73	9 26 03	
Do	July 20, 1877			17 70 76	62 53 20	301 19 09		
Bond, L. D.	July 10, 1877				87 25 93	475 15 38		
Do	July 14, 1877			0 71 04	15 46 89	153 58 19		6 64 65
Cahill, E. J.	July 16, 1877				29 37 40	88 60 16	0 18 25	
Cervantes, A. L.	May 9, 1877					17 20 42		
Carlton, William H.	Aug. 1, 1877			0 78 50	17 75 58	119 54 76	0 33 00	
Do	Aug. 2, 1877			0 71 33	23 77 75	119 69 93		
Cooper, A. S.	Oct. 8, 1877	6 00 00			0 14 50	6 25 75	4 36 85	
Cooper, L. F.	Nov. 10, 1877			0 71 50	0 11 14	9 13 92	5 23 59	
Davis, Preston	May 21, 1877				0 61 02	2 22 25		
Doyle, J. M.	Sept. 18, 1877				2 74 95	13 49 22		
Glover, J. R.	Dec. 10, 1877				4 43 48	28 56 24		
Do	July 10, 1877				14 00 24	54 49 44		
Do	July 18, 1877				5 40 00	8 01 15		
Do	July 11, 1877				8 75 68	22 04 23		
Do	Aug. 13, 1877					6 79 09		
Do	Aug. 13, 1877			4 43 74	2 50 39	36 74 41		
Do	Aug. 22, 1877			0 32 57	11 09 60	21 77 65	0 05 09	
Do	May 26, 1877			31 00 75	0 11 25			
Do	Sept. 18, 1875				15 00 00	2 57 88		0 14 26
Do	Jan. 18, 1878				4 00 00	16 40 55		0 56 16
Do	Aug. 18, 1877				8 40 35	54 11 85		
Gilcrest, John.	July 24, 1877				24 79 94	64 46 69	1 57 75	
Goldsworthy, John	Aug. 18, 1877				0 65 00	11 04 00		
Kiel, Jarvis.	Oct. 19, 1871				1 19 62	41 70 75		
Lewis, William J.	July 18, 1877			6 00 00	9 00 00	46 38 18	8 68 05	
Do	July 18, 1877					11 44 06	5 59 52	
Minto, William	Aug. 4, 1877			20 67 64	33 69 46	113 61 44		
Do	Aug. 27, 1877				2 00 00	16 63 43		
Do	Nov. 26, 1877			2 29 30	5 25 20	6 61 93	9 36 82	
Do	Mar. 15, 1878				2 40 00	12 70 08		
McKim, William L.	Sept. 15, 1873				24 03 38	120 02 64		2 00 25
Nurse, M. A.	Oct. 10, 1877			0 42 29	0 36 50	14 00 64		
Norway, W. H.	July 14, 1877				23 45 61	45 05 73	21 65 00	
Perris, F. T.	Nov. 3, 1876					27 40 33		
Parke, J. G.	June 22, 1877				3 48 71	5 50 90	1 41 70	
Perrin, George H.	Dec. 12, 1876			2 17 26	9 15 00	53 54 30	7 07 20	
Reilly, M. F.	Aug. 16, 1877			6 49 78	8 60 67	37 18 26		

Do.....	July 18, 1877	.....	.....	1 11 90	6 34 27	76 71 24	.....	.....	0 65 03
Do.....	Sept. 24, 1877	.....	.....	.....	.....	15 78 09	.....	.....	.....
Do.....	Sept. 24, 1877	.....	.....	.....	43 62 62	88 62 03	.....	.....	3 32 31
Ruxton, Albert G.....	Nov. 13, 1876	.....	.....	.....	4 00 00	43 34 02	.....	.....	.....
Richards, William A.....	Nov. 13, 1876	.....	1 00 00	.....	15 52 64	81 39 99	.....	.....	0 32 36
Do.....	Nov. 13, 1876	.....	.....	.....	2 79 25	20 02 22	.....	.....	0 53 40
Reynolds, William P.....	Mar. 31, 1875	.....	.....	0 51 70	1 66 77	2 37 61	.....	6 68 73	.....
Sandford, H. H.....	Sept. 18, 1876	.....	.....	.....	11 38 35	26 14 44	.....	.....	.....
Do.....	Apr. 25, 1877	.....	.....	.....	.....	7 60 00	.....	.....	.....
Spurr, D. F.....	May 1, 1877	.....	.....	.....	.....	3 60 00	.....	.....	.....
Seibold, L.....	Oct. 31, 1876	.....	.....	.....	.....	.....	.....	1 48 72	1 53 25
Smith, A. A.....	July 12, 1877	.....	.....	.....	11 44 00	20 03 97	.....	.....	.....
Do.....	Sept. 18, 1876	.....	.....	.....	33 79 21	114 15 79	.....	.....	7 71 21
Ward, T. H.....	Nov. 13, 1876	.....	7 05 56	2 14 91	14 42 28	162 41 23	.....	.....	.....
Wilson, R. M.....	May 9, 1877	.....	.....	0 08 32	11 54 40	12 68 95	.....	.....	.....
Do.....	Aug. 15, 1876	.....	.....	.....	.....	18 79 95	.....	.....	.....
Wheeler, M. G.....	Dec. 26, 1877	.....	.....	0 40 00	2 02 12	37 69 89	.....	.....	.....
Woods, James E.....	July 10, 1877	.....	.....	.....	15 42 77	53 44 36	.....	.....	.....
Do.....	July 10, 1877	.....	.....	0 41 04	7 79 98	53 66 32	.....	.....	.....
Do.....	Oct. 25, 1876	.....	.....	.....	.....	4 19 93	.....	.....	.....
Do.....	Oct. 16, 1877	.....	.....	.....	15 79 20	59 78 35	.....	.....	.....
Do.....	Oct. 15, 1877	.....	.....	.....	1 00 28	2 20 64	.....	.....	.....
Do.....	Jan. 14, 1878	.....	.....	.....	5 79 89	15 78 66	.....	.....	2 41 87
Total.....	.....	802 41 09	404 61 23	5, 467 46 09	31, 527 08 71	130, 098 61 69	2, 346 70 40	27 04 75	.....

E.—List of lands surveyed in California from June 30, 1877, to June 30, 1878.

No. of townships surveyed.	Description.	Meridian.	Public land.	A.	B.	C.	D.	E.	F.	Remarks.	Total.
			Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.		Acres.
a	Township 1 north, range 15 east..	Mount Diablo	22,133.15				800.00				22,933.15
a	Township 4 north, range 24 east..	do	8,322.40				14,717.60				23,040.00
a	Township 5 north, range 24 east..	do	2,080.00				20,960.00				23,040.00
a	Township 14 north, range 3 east..	do	13,723.07	A				E	F	A + E + F	22,936.32
a	Township 20 north, range 18 east..	do	2,376.86								2,376.86
a	Township 29 north, range 12 east..	do	15,552.08				7,404.27				22,956.35
a	Township 30 north, range 1 east..	do	2,562.96				20,346.24				22,909.20
a	Township 40 north, range 17 east..	do	6,581.38				9,583.00				16,164.38
a	Township 41 north, range 17 east..	do	75.12				D	E		D + E	13,832.64
a	Township 42 north, range 17 east..	do	4,549.15				D	E		D + E	13,832.64
a	Township 7 north, range 7 west..	do	7,473.91	15,662.09							23,136.00
a	Township 11 north, range 8 west..	do	8,767.86				15,877.19				24,645.05
a	Township 12 north, range 11 west..	do	21,060.05				4,408.95				25,469.00
a	Township 12 north, range 12 west..	do	17,819.96				6,668.01				24,487.97
a	Township 15 north, range 17 west..	do	10,546.52					134.54			10,681.06
a	Township 16 north, range 11 west..	do	7,844.31				15,108.41				22,952.72
a	Township 17 north, range 6 west..	do	11,867.23				10,970.00				22,837.23
a	Township 17 north, range 14 west..	do	7,388.76				15,740.00				23,128.76
a	Township 17 north, range 16 west..	do	13,118.84				9,921.16				23,040.00
a	Township 20 north, range 12 west..	do	14,534.40				8,494.08				23,028.48
a	Township 20 north, range 15 west..	do	15,361.20						7,680.00		23,041.20
a	Township 21 north, range 12 west..	do	11,889.02				11,200.00				23,089.02
a	Township 21 north, range 13 west..	do	6,879.74				16,160.00				23,039.74
a	Township 22 north, range 15 west..	do	13,114.72						9,920.00		23,034.72
a	Township 33 north, range 4 west..	do	10,736.76				12,567.24				23,304.00
a	Township 10 south, range 2 east..	do	1,997.14	A			D			A + D	21,042.86
a	Township 30 south, range 12 east..	do	10,03.126	A			D			A + D	12,978.26
a	Township 30 south, range 14 east..	do	2,037.78	A			D			A + D	21,002.22
a	Township 2 north, range 1 east..	San Bernardino	9,904.76				13,108.00				23,012.76
a	Township 5 north, range 29 west..	do	2,551.18	A			D			A + D	23,040.00
a	Township 6 north, range 14 west..	do	3,280.00				19,760.00				23,040.00
a	Township 2 south, range 11 west..	do	7,933.70	15,200.00							23,133.70

a	Township 19 north, range 1 west	Humboldt	719. 87		Returned in previous reports	719. 87		Area of Silver Lake.	Area of Twin and Silver Lakes.	A + area of Feather River.	719. 87	
			294, 815. 14	30, 862. 09		233, 794. 15	134. 54	17, 600. 00	107, 763. 42	684, 972. 34		
1a	Township 1 north, range 15 east..	Mount Diablo	22, 293. 15			640. 00					22, 933. 15	
2a	Township 4 north, range 24 east..	do	13, 121. 00			9, 920. 00					23, 041. 00	
3	Township 4 north, range 27 east..	do	4, 799. 48					18, 250. 96			23, 050. 44	
4	Township 5 north, range 17 east..	do	23, 097. 24								23, 097. 24	
5a	Township 5 north, range 24 east..	do	5, 760. 00			14, 189. 00					19, 949. 00	
6	Township 6 north, range 17 east..	do	21, 570. 21			1, 450. 00					23, 020. 21	
7	Township 6 north, range 27 east..	do	1, 658. 68								1, 658. 68	
8	Township 7 north, range 13 east..	do	22, 730. 54								22, 730. 54	
9	Township 7 north, range 14 east..	do	23, 352. 15								23, 352. 15	
10	Township 7 north, range 21 east..	do	20, 007. 50			3, 038. 30					23, 045. 80	
11	Township 7 north, range 22 east..	do	1, 751. 57			20, 628. 97	638. 46				23, 019. 00	
12	Township 7 north, range 26 east..	do	740. 87								740. 87	
13	Township 9 north, range 16 east..	do	23, 073. 97								23, 073. 97	
14	Township 9 north, range 17 east..	do	14, 978. 78			2, 169. 00			322. 66		17, 470. 44	
15	Township 10 north, range 16 east..	do	26, 390. 46								26, 390. 46	
16	Township 10 north, range 17 east..	do	19, 803. 16						135. 39		19, 938. 55	
17	Township 11 north, range 16 east..	do	18, 976. 64								18, 976. 64	
18a	Township 14 north, range 3 east..	do	13, 723. 07	A			667. 51		8, 545. 74		22, 936. 32	
19	Township 19 north, range 8 east..	do	21, 329. 76								21, 329. 76	
20	Township 19 north, range 9 east..	do	23, 949. 00								23, 949. 00	
21	Township 19 north, range 10 east..	do	22, 364. 36								22, 364. 36	
22	Township 19 north, range 11 east..	do	24, 116. 22								24, 116. 22	
23	Township 19 north, range 12 east..	do	23, 057. 32								23, 057. 32	
24	Township 20 north, range 8 east..	do	20, 610. 38			498. 56					21, 108. 94	
25	Township 20 north, range 10 east..	do	31, 453. 86								21, 453. 86	
26	Township 20 north, range 11 east..	do	22, 281. 00			431. 92					22, 712. 92	
27	Township 20 north, range 12 east..	do	21, 858. 78								21, 858. 78	
28a	Township 20 north, range 18 east..	do	5, 392. 72								5, 392. 72	
29	Township 22 north, range 18 east..	do	3, 106. 72								3, 106. 72	
30	Township 23 north, range 18 east..	do	3, 212. 28								3, 212. 28	
31	Township 24 north, range 5 east..	do	12, 803. 16			10, 271. 60					23, 074. 76	
32	Township 25 north, range 11 east..	do	3, 679. 08			17, 730. 00	480. 00				21, 889. 08	
33	Township 25 north, range 18 east..	do	3, 204. 12			80. 93					3, 285. 05	
34	Township 26 north, range 5 east..	do	18, 294. 25			1, 440. 00					19, 734. 25	
35	Township 27 north, range 1 east..	do	22, 991. 67								22, 991. 67	
36	Township 27 north, range 5 east..	do	1, 267. 44			19, 242. 56					20, 510. 00	
37	Township 27 north, range 9 east..	do	7, 023. 91			15, 740. 00					22, 763. 91	
38	Township 28 north, range 1 east..	do	23, 139. 47								23, 139. 47	
39	Township 28 north, range 12 east..	do	22, 160. 80								23, 000. 80	
40a	Township 29 north, range 12 east..	do	22, 749. 63								22, 749. 63	
41a	Township 30 north, range 1 east..	do	16, 034. 73			2, 007. 04					18, 641. 77	

E.—List of lands surveyed in California from June 30, 1877, to June 30, 1878—Continued.

No. of township surveyed	Description.	Meridian.	Public land.	A. Confirmed private land claims.	B. Military reservation.	C. Indian reservation.	D. Unsurveyed mount- ain land.	E. River, swamp, and overflowed land.	F. Unsurveyed public land.	Remarks.	Total.
			Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.		Acre.
42	Township 35 north, range 17 east.	Mount Diablo	21,787.44								21,787.44
43	Township 36 north, range 17 east.	do	19,197.29								19,197.29
44	Township 37 north, range 17 east.	do	19,136.78								19,136.78
45	Township 39 north, range 14 east.	do	21,167.32					1,920.00			23,087.32
46a	Township 40 north, range 17 east.	do	14,034.59						F	F + area of lakes } 5,258.62	19,293.21
47	Township 41 north, range 15 east.	do	8,125.46				10,427.48				18,552.94
48a	Township 41 north, range 17 east.	do	8,916.20				D			D + area of lake } 8,037.00	16,953.20
49	Township 42 north, range 15 east.	do	18,622.36								18,622.36
50a	Township 42 north, range 17 east.	do	6,622.39				D			D + area of lake } 10,331.61	16,954.00
51a	Township 7 north, range 7 west.	do	10,492.67	12,643.33							23,136.00
52	Township 10 north, range 3 west.	do	4,410.30	A						A + D } 18,590.63	23,000.93
53a	Township 11 north, range 8 west.	do	13,201.44				11,443.61				24,645.05
54a	Township 12 north, range 11 west.	do	23,548.50				1,920.50				25,469.00
55a	Township 12 north, range 12 west.	do	18,779.96				5,708.01				24,487.97
56	Township 13 north, range 3 west.	do	9,703.17				13,250.00				22,953.17
57	Township 15 north, range 11 west.	do	6,990.96				13,263.42			Area of Blue Lake } 0.07	20,254.45
58a	Township 15 north, range 17 west.	do	10,567.91					113.15			10,681.06
59a	Township 16 north, range 5 west.	do	20,046.22				2,778.44				22,824.66
60a	Township 16 north, range 11 west.	do	22,640.58				326.72				22,967.30
61a	Township 17 north, range 6 west.	do	14,347.23				8,490.00				22,837.23
62a	Township 17 north, range 11 west.	do	17,959.34				5,031.10				22,990.44
63a	Township 17 north, range 14 west.	do	20,458.49				4,100.00				24,558.49
64a	Township 17 north, range 16 west.	do	23,026.89								23,026.89
65	Township 19 north, range 15 west.	do	23,032.24						2,482.16		23,032.24
66a	Township 20 north, range 12 west.	do	20,446.74								22,928.90
67	Township 20 north, range 14 west.	do	22,930.23								22,930.23
68a	Township 20 north, range 15 west.	do	23,032.01								23,032.01
69a	Township 21 north, range 12 west.	do	23,093.43								23,093.43
70a	Township 21 north, range 13 west.	do	23,322.39				1,920.00				25,243.39

71	Township 22 north, range 11 west.	do	18, 375.93			4, 711.10			23, 087.03
72	Township 22 north, range 14 west.	do	19, 179.88			5, 320.00			24, 499.88
73a	Township 22 north, range 15 west.	do	17, 441.17			5, 617.84			23, 059.01
74	Township 22 north, range 16 west.	do	5, 032.78			13, 377.60			18, 410.38
75	Township 22 north, range 17 west.	do	19, 746.17			3, 330.00			23, 076.17
76	Township 23 north, range 11 west	do	11, 823.68		13.79	11, 205.00		Round Valley Indian reservation.	23, 042.47
77	Township 22 north, range 15 west.	do	9, 306.48			12, 185.00			21, 491.48
78	Township 24 north, range 7 west.	do	22, 707.71					Round Valley Indian reservation.	22, 707.71
79	Township 24 north, range 14 west	do	10, 438.43		15, 204.56	212.71			25, 855.70
80	Township 24 north, range 16 west	do	8, 164.83			11, 913.97			20, 078.80
81	Township 24 north, range 17 west.	do	10, 501.77			13, 642.07			24, 143.84
82	Township 25 north, range 7 west	do	21, 799.93						21, 799.93
83a	Township 33 north, range 4 west	do	11, 216.76			12, 087.24			23, 304.00
84	Township 34 north, range 4 west	do	1, 820.65			21, 170.00		Area of U. S. fishery reservation.	23, 270.65
85	Township 37 north, range 6 west.	do	13, 287.58			9, 760.00			23, 047.58
86	Township 37 north, range 7 west.	do	19, 202.92			3, 680.00			22, 882.92
87	Township 38 north, range 3 west.	do	560.00			22, 400.00			22, 960.00
88	Township 39 north, range 2 west	do	3, 118.18			19, 744.00	80.00		22, 942.18
89	Township 39 north, range 3 west	do	3, 160.00			19, 570.00	200.00		22, 930.00
90	Township 40 north, range 1 west	do	18, 629.06				4, 280.00		22, 909.06
91	Township 40 north, range 2 west	do	16, 433.00			6, 390.00			22, 823.00
92	Township 40 north, range 4 west.	do	4, 509.82			17, 824.00	560.00		22, 893.82
93	Township 1 south, range 16 east.	do	22, 283.63			1, 791.52			24, 075.15
94	Township 1 south, range 17 east.	do	13, 731.01			10, 721.44			24, 452.45
95	Township 1 south, range 27 east.	do	11, 042.72			12, 001.00			23, 043.72
96	Township 1 south, range 28 east.	do	13, 430.36			6, 600.00			23, 030.36
97	Township 3 south, range 16 east.	do	8, 429.13			14, 611.53			23, 040.46
98	Township 5 south, range 20 east.	do	17, 228.72			6, 760.00			23, 988.72
99a	Township 10 south, range 2 east.	do	2, 322.74					A + D	23, 040.00
100	Township 17 south, range 4 east.	do	16, 267.33					A + F	23, 040.00
101	Township 17 south, range 5 east.	do	2, 774.96					A + F	23, 040.00
102	Township 18 south, range 3 east.	do	7, 838.00			15, 200.00			23, 038.00
103	Township 18 south, range 4 east.	do	13, 461.70	456.98		9, 121.92			23, 040.60
104	Township 20 south, range 8 east.	do	3, 067.33	A				A + D	22, 957.33
105	Township 27 south, range 40 east.	do	22, 981.05						22, 981.05
106	Township 27 south, range 41 east.	do	23, 060.65						23, 060.65
107	Township 28 south, range 40 east.	do	22, 874.89						22, 874.89
108	Township 28 south, range 41 east.	do	22, 923.05						22, 923.05
109a	Township 30 south, range 12 east.	do	10, 038.30	A				A + D	23, 040.00
110a	Township 30 south, range 14 east.	do	6, 980.38	A				A + D	23, 040.00
111	Township 1 north, range 1 east.	San Bernardino	12, 324.20			10, 720.00			23, 044.20
112a	Township 2 north, range 1 east.	do	10, 301.63			12, 711.08			23, 012.76

E.—List of lands surveyed in California from June 30, 1877, to June 30, 1878—Continued.

No. of townships surveyed.	Description.	Meridian.	Public land.	A. Confined private land claims.	B. Military reservation.	C. Indian reservation.	D. Unsurveyed mount- ain land.	E. River, swamp, and overflowed land.	F. Unsurveyed public land.	Remarks.	Total.
			Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.		Acres.
113	Township 1 north, range 1 west.	San Bernardino	1,120.00				21,920.00				23,040.00
114	Township 4 north, range 22 west.	do	7,644.46	15,395.54							23,040.00
115	Township 4 north, range 23 west.	do	1,305.27	20,427.00			1,307.73				23,040.00
116	Township 5 north, range 22 west.	do	3,658.04	25.48			19,361.00				23,044.52
117 ^a	Township 5 north, range 29 west.	do	6,831.25	A			D			A + D	21,965.00
118 ^a	Township 6 north, range 14 west.	do	5,200.00				17,840.00				23,040.00
119	Township 6 north, range 15 west.	do	1,040.00				22,000.00				23,040.00
120	Township 11 north, range 17 west.	do	2,018.06	A			D			A & D	23,040.00
121	Township 11 north, range 18 west.	do	195.25	22,820.00							23,015.25
122	Township 8 south, range 1 east.	do	13,788.71				9,221.64				23,170.35
123	Township 1 south, range 9 west.	do	965.60	21,982.00				160.00			22,947.60
124	Township 2 south, range 4 west.	do	10,092.49	607.27			12,320.00				23,019.76
125	Township 2 south, range 5 west.	do	5,214.64	17,470.00			400.00				23,084.64
126 ^a	Township 2 south, range 11 west.	do	7,986.25	15,147.45							23,133.70
127	Township 16 north, range 1 east.	Humboldt	16,544.09				D			D + area	22,299.97
128	Township 17 north, range 1 east.	do	3,773.89				D			of Smith's } River.	23,040.00
129	Township 15 north, range 1 west.	do	4,320.52								4,320.52
130 ^a	Township 19 north, range 1 west.	do	311.45						1,858.88		2,170.33
131	Township 4 south, range 8 east.	do	11,144.73								11,144.73
132	Township 5 south, range 7 east.	do	16,005.46			433.42	6,630.80	120.00		Round Valley Indian reservation.	23,189.68
133	Township 5 south, range 8 east.	do	10,895.58			C	D			C + D	16,060.69
a	Aggregate		1,793,423.96	126,975.05		15,651.77	626,997.15	5,299.12	26,872.00		2,809,769.85
a	Returned in previous reports		294,815.14	30,862.09			233,794.15	134.54	17,600.00		684,972.34
a	Total		1,498,608.82	96,112.96		15,651.77	393,203.00	5,164.58	9,272.00		2,124,797.51

^a Townships returned in previous reports, the areas of which are changed by subsequent surveys or amendments.

RECAPITULATION.

Acres public land surveyed	1,498,608.82
Acres as per column A.....	96,112.96
Acres as per column C.....	15,651.77
Acres as per column D.....	393,203.00
Acres as per column E.....	5,164.58
Acres as per column F.....	9,272.00
Acres as per column "Remarks"	106,784.38
Aggregate.....	<u>2,124,797.51</u>

F.—Plats made in the office of the United States surveyor general for California during the fiscal year 1877-'78.

Description.	Originals.	Department.	Register.	Posting plats.	Skeleton maps.	Tracings for accounts.	Sketches for deputies.	Total.
Plats of township exteriors	10	10						20
Maps of subdivision lines and amendments	137	139	139					415
Plats of ranches	1	3			25			29
Plats of mining claims and amendments	154	155	154	234				697
Sketches for deputies							4	4
Tracings for exhibits and accounts						3		3
Total	302	307	293	234	25	3	4	1,168

G.—Statement of transcripts of field notes of public surveys sent to the department at Washington from the office of the United States surveyor general for California during the fiscal year 1877-'78.

Name of deputy.	Date of contract.	Number of transcripts.	When sent.
Anderson, James M	Nov. 14, 1876	3	July 31, 1877
Do	Nov. 17, 1876	3	Sept. 7, 1877
Do	Aug. 7, 1877	3	Feb. 11, 1878
Benson, John A.	Sept. 11, 1876	1	July 9, 1877
Benson, W. F.	May 25, 1877	6	Oct. 23, 1877
Do	July 20, 1877	11	Nov. 22, 1877
Benson, W. F. (instructions)	Nov. 26, 1877	2	Dec. 17, 1877
Do	Nov. 26, 1877	3	Dec. 17, 1877
Do	Nov. 26, 1877	2	Dec. 31, 1877
Bond, L. D.	July 14, 1877	6	Oct. 13, 1877
Do	July 10, 1877	10	Feb. 21, 1878
Craven, H. S. (instructions)	July 6, 1877	1	Aug. 14, 1877
Cahill, E. J.	July 16, 1877	2	Dec. 10, 1877
Carlton, William H.	Aug. 1, 1877	3	Dec. 20, 1877
Do	Aug. 2, 1877	3	Dec. 20, 1877
Cooper, A. S.	Oct. 8, 1877	1	Jan. 9, 1878
Cox, A. L. (instructions)	Oct. 25, 1877	1	Feb. 27, 1878
Cooper, L. F.	Nov. 10, 1877	1	June 27, 1878
Cervantes, A. L.	May 9, 1877	1	June 29, 1878
Davis, Preston	May 21, 1877	1	Aug. 14, 1877
Dewoody, T. J. (instructions)	Sept. 11, 1877	1	Sept. 26, 1877
Doyle, J. M.	Sept. 18, 1877	2	June 27, 1878
Glover, J. R.	Dec. 10, 1876	2	July 19, 1877
Glover, J. R. (instructions)	June 7, 1877	1	Aug. 6, 1877
Glover, J. R.	July 10, 1877	2	Aug. 10, 1877
Do	July 18, 1877	2	Aug. 14, 1877
Do	July 11, 1877	3	Aug. 20, 1877
Do	Aug. 13, 1877	3	Oct. 22, 1877
Do	Aug. 13, 1877	1	Oct. 22, 1877
Do	Aug. 22, 1877	2	Oct. 26, 1877
Do	May 26, 1877	1	Feb. 7, 1878
Do	Sept. 18, 1877	1	Feb. 27, 1878
Do	Jan. 18, 1878	2	Mar. 11, 1878
Do	Aug. 18, 1877	2	June 27, 1878
Gilcrest, John	July 24, 1877	3	Nov. 27, 1877
Goldsworthy, John	Aug. 18, 1877	2	Mar. 15, 1878
Kiel, Jarvis	Oct. 19, 1871	1	Mar. 9, 1878
Laken, George W. (instructions)	June 14, 1877	1	Nov. 26, 1877
Lewis, William J.	July 18, 1877	3	June 27, 1878
Do	July 18, 1877	1	June 27, 1878
McPherson, Alex. (instructions)	June 4, 1877	1	Sept. 4, 1877
Minto, William	Aug. 27, 1877	2	Nov. 17, 1877
Do	Aug. 4, 1877	11	Nov. 17, 1877
Do	Nov. 26, 1877	1	Jan. 16, 1878
Do	Mar. 15, 1878	1	June 28, 1878
McKim, William L.	Sept. 15, 1873	2	Mar. 29, 1878
Nurse, M. A.	Oct. 10, 1877	1	Mar. 15, 1878
Norway, William H.	July 14, 1877	5	June 28, 1878
Perris, F. T.	Nov. 3, 1876	1	Sept. 20, 1877
Pennington, J. T.	Oct. 26, 1872	1	Nov. 21, 1877
Parke, J. G.	June 26, 1877	1	Nov. 30, 1877

G.—Statement of transcripts of field notes of public surveys, &c.—Continued.

Name of deputy.	Date of contract.	Number of transcripts.	When sent.
Perrin, George H	Dec. 12, 1876	2	June 27, 1878
Ruxton, A. G	Nov. 13, 1876	2	July 11, 1877
Richards, William A	Nov. 13, 1876	2	Aug. 3, 1877
Do	Nov. 13, 1876	3	Aug. 14, 1877
Reynolds, William P	Mar. 31, 1875	1	Sept. 26, 1877
Reilly, M. F	Aug. 16, 1877	3	Dec. 12, 1877
Do	July 18, 1877	3	Jan. 7, 1878
Do	Sept. 24, 1877	1	Feb. 27, 1878
Do	Sept. 24, 1877	5	Feb. 29, 1878
Do	Sept. 24, 1877	1	Apr. 2, 1878
Do	Sept. 24, 1877	1	Apr. 2, 1878
Sandford, H. H	Sept. 18, 1876	1	Aug. 13, 1877
Do	Apr. 25, 1877	1	Feb. 13, 1878
Spurr, D. F	May 1, 1877	1	Oct. 18, 1877
Seibold, L	Oct. 31, 1876	1	Nov. 19, 1877
Smith, A. A	July 12, 1877	1	Jan. 12, 1878
Do	July 12, 1877	1	Jan. 30, 1878
Do	Sept. 18, 1876	4	Jan. 21, 1878
Stephens, Thomas S. (instructions)	Nov. 14, 1877	1	Mar. 15, 1878
Thompson, J. G. (instructions)	Oct. 4, 1877	2	Dec. 31, 1877
Do	Oct. 15, 1877	1	Dec. 31, 1877
Ward, T. H	Nov. 13, 1876	4	July 31, 1877
Woods, James E	July 10, 1877	2	Oct. 9, 1877
Do	July 10, 1877	3	Nov. 15, 1877
Do	Oct. 16, 1877	2	Jan. 25, 1878
Do	Oct. 15, 1877	1	Feb. 8, 1878
Do	Jan. 14, 1877	1	June 27, 1878
Wilson, R. M	May 9, 1877	1	Dec. 14, 1877
Do	Aug. 15, 1876	1	Jan. 18, 1878
Wheeler, M. G	Dec. 26, 1877	1	Apr. 6, 1878
Total number transmitted		181	

H.—Statement of descriptive notes, decrees of court, &c., of private land claims, transmitted to the department at Washington during the fiscal year 1877-'78.

When sent.	Papers transmitted.	Name of claim.	To whom confirmed.
Sept. 12, 1877	Authenticated copy of the order of the district court, northern district, to return survey to said court.	Agua Caliente	T. M. Leavenworth.
May 9, 1878	Statement on appeal filed by L. Aldrich, attorney for claimant; statement of B. S. Brooks and H. Goodfellow, attorneys for sundry settlers.		
Sept. 1, 1877	Plat of survey; descriptive notes; decree of confirmation; extract from minutes United States district court; decree overruling exceptions to survey; tracing of plat of survey on file in office of clerk United States district court; certificate of clerk United States district court relative to proceedings; opinion board land commissioners; Cienega del Gabilan Lantour, confirmee; decree board land commissioners in the above-named case; petition "A" in the same; opinion board land commissioners, "Part of Alisal," Bruno Bernal, confirmee; decree of confirmation in the above case; opinion board land commissioners, "Part of Alisal," Hartnell, confirmee; translation of grant "Lansal," J. P. Leese, confirmee; decree of confirmation in the same; transcript from papers in land commission (petition "Doc. H. I. T., No. 1, annexed to deposition of H. and Jimeno," and decree confirmation); decree United States district court; Thomas O. Laskin; court minutes, 2d February, 1858; Thomas O. Laskin; court minutes, 3d February, 1858; decree district court, "Sansal," J. P. Leese, confirmee; de-	Alisal	W. P. Hartnell

H.—Statement of descriptive notes, decrees of court, &c.—Continued.

When sent.	Papers transmitted.	Name of claim.	To whom confirmed.
Sept. 1, 1877	cree district court, "Alisal," Bruno Bernal, confirmee; decree confirming title; dismissal of appeal; decree approving survey, dated December 9, 1865, with tracing of plat of survey attached marked "J. D. C., No. 1"; translation of expediente "Alisal"; certified copies of deeds, José G. Hartnell to Pedro Zaballo, "Ex. H H, No. 1"; Juan E. Hartnell to Pedro Zaballa, "Ex. H H, No. 2"; Juan L. Jackson and wife to Pedro Zaballa, "Ex. H H, No. 3;" Adelberte P. Hartnell to Pedro Zaballa, "Ex. H H, No. 4"; Miguel Smith and wife and Amelia Hartnell to Pedro Zaballa, "Ex. H H, No. 5"; Pablo E. Hartnell to Pedro Zaballa, "Ex. H H, No. 6"; Joaquin Arguezte to J. Vicente de Laviago, "Ex. H H, No. 7"; J. Vicente de Laviago to Pedro Zaballa, "Ex. H H, No. 8"; certified copy deed; S. A. Hartnell to J. A. Arques, "Ex. H H, No. 9"; testimony of David Spence (two copies), "Ex. H H, No. 10", "Ex. H H, No. 11"; translation of expediente, rancho "Alisal," certified by R. C. Hopkins, "Ex. H H, No. 12;" translation of grants and juridical possession, rancho "El Alisal," as given to Mariano and Feliciano Soberanes, 1824 and 1834, "Ex. H H, No. 13"; traced copy of grants and translations by C. Car and Hopkins, "Ex. Hopkins I"; copies of letters from surveyor general to county clerk of Monterey County, "Ex. Hopkins II"; notice of time to take testimony to John Wilson, "Ex. A, J. A. R."; translation grant; proceedings on survey and juridical possession up to December 18, 1834, "Ex. B, J. A. R."; map, "Ex. I, J. A. R."; translation of proceedings territorial deputation, July 15, 1834, "Ex. II, J. A. R."; grant to W. E. P. Hartnell and certain proceedings and concession, "Ex. III, J. A. R."; translation grant, No. 32, "Ex. IV, J. A. R."; instructions to J. E. Terrell, deputy surveyor, "Ex. V, J. A. R."; instructions to Terrell, "Alisal," Bernal, "Ex. VI, J. A. R."; field notes Terrell survey; translation of petition and proceedings "Sansal" rancho; printed report of R. C. Hopkins to Surveyor General Stratton, May 19, 1874; printed translation of grant made to Feliciano and Mariano Soberanes, June 26, 1834; printed translation of grant for part of rancho "El Alisal" to W. E. P. Hartnell, June 26, 1834; printed translation of expediente relative to vacant lands; printed translation record of possession rancho "Del Sansal"; copy letter from Commissioner Willis Drummond to Lewis Lillie, December 2, 1873; notice attorney for Hartnell heirs and contestants to attorney for J. D. Carr <i>et al.</i>; protest of Teresa de Hartnell, filed 21st May, 1859; protest against survey by John Wilson, filed January 26, 1874; map accompanying protest of J. Wilson; brief for confirmee and contestants, L. Aldrich, attorney for contestants; reply to brief for contestants, William Mathews for adjoining land owners, record of evidence (bound); surveyor general's opinion, certified copy; certificate of advertisement.	Alisal.....	W. P. Hartnell.

H.—Statement of descriptive notes, decrees of court, &c.—Continued.

When sent.	Papers transmitted.	Name of claim.	To whom confirmed.
Dec. 14, 1877	Brief for confirmeres and contestants (reply to Wm. Mathews).		
Sept. 6, 1877	Appeal filed by Grey & Brandon and E. L. Goold, attorneys for claimants.	Arroyo de la Laguna....	Williams <i>et al.</i>
Apr. 3, 1878	Petition for a rehearing by Dwinelle, Grey and Brandon, attorneys for claimants.		
Aug. 24, 1877	Report of A. G. Ruxton; tracing to accompany report; depositions before county clerk San Diego County; map marked "Ex. A."	Azusa.....	A. Duarte.
Feb. 9, 1878	Letters from Robert S. Baker; claims the right as two-thirds owner of the rancho to make selection of his share within exhibit boundaries, and asking for specific instructions.	Boca de Santa Monica...	Ysidro Reyes.
July 18, 1877	Tracing of plat of survey; certified copies decree of confirmation United States district court; order to file mandate Supreme Court, and G. H. Thompson's field notes and report, Ex. A and B; depositions of Charles Brown, with tracing attached, Ex. G.; deed, quarters, S. Spark and wife to Mary Hamilton, trustee (certified copy), Ex. H.; deed Mary H. Sparks, by trustee, to Joshua Childs (certified copy), Ex. I.; deed Joshua Childs to G. J. Hubert Sanders (certified copy), Ex. K.; deed Ferdinand Vassault to Joshua Childs (certified copy); stipulation that J. and D. Callahan have acquired title to block 31; protest Jonetta M. Ingram, by attorneys; argument of counsel for contestants; reply to claimants; brief and argument; testimony taken before J. A. Robinson, United States commissioner; surveyor general's opinion.	Las Camaritas	Ferdinand Vassault.
Oct. 4, 1877	Argument of R. R. & H. N. Clement, attorneys for contestants, reviewing the surveyor general's opinion; sketch of Humphrey's survey in 1852.		
Feb. 14, 1878	Diagram and testimony taken before this office, as required by General Land Office, letter "D," of November 15, 1877, inclosed with surveyor general's report of same.		
Dec. 14, 1877	Amended plat of township 6 north, range 34 west, San Bernardino meridian, showing the result of the survey of the rancho.	Cañada de Sulsipudes ...	John Keyes.
Feb. 20, 1878	Copy of a letter from this office to General Land Office, dated March 3, 1858.	Colus	Chas. D. Semple.
July 16, 1877	Order of United States district court to file mandate of United States Supreme Court (certified copy).	Cuca	M. J. de Los Angeles.
Aug. 13, 1877	Mandate Supreme Court (certified copy).		
Oct. 23, 1877	Letter from this office that the case is closed.		
Nov. 1, 1877	Letter from this office stating Mr. Scott has been given until December 5 to file testimony.		
Dec. 10, 1877	Affidavits of Margarita Soberanes Trapillo, Juan Rodrigues, Mannilito Cota, and Chalmer Scott, in reference to the boundaries of the rancho; letter from Mr. Scott explaining cause of delay in sending affidavit.		
June 29, 1878	Contract and bond of Wm. Minto, deputy surveyor.	El Sobrante	J. J. Castro.
Feb. 13, 1878	Pamphlet furnished by Judge Stanley, accompanying surveyor general Ames's "Statement of facts"; plat of survey; descriptive notes; certificate of advertisement; decree of confirmation, and certificate of no further proceedings; affidavit of T. J. Dewoody; protest of J. A. Stanley;	Entre Napa Rincon de la Camero.	M. F. Hignera.

H.—Statement of descriptive notes, decrees of court, &c.—Continued.

When sent.	Papers transmitted.	Name of claim.	To whom confirmed.
Feb. 13, 1878	filed December 27, 1875; printed copy of same; objections of J. A. Stanley to approval of survey; evidence and argument in support thereof; filed May 17, 1876; appearance and request to forward survey; B. S. Brooks, attorney; answer to objections of J. A. Stanley.	Entre Napa Rincon de la Camero.	M. F. Hignera.
Dec. 8, 1877	Appeal and points of exceptions of Britton & Gray received with General Land Office letter, 20th November, 1877.	Huasana	Isaac J. Sparks.
Feb. 20, 1878	Copy of letter to the General Land Office, dated March 3, 1858.	Jimeno	O. Larkin
Oct. 10, 1877	Remarks of surveyor general on Hopkins's report; Hopkins's report; testimony taken before filing of stipulation; protest against Commissioner's decision of 16th August, 1873, by Riverside Land and Irrigating Company; "Ex. A," accompanying protest; Ex. B," accompanying protest, map; "Ex. C," accompanying protest, map; map of the lands of the Riverside Land and Irrigating Company; stipulation that east line of rancho remain as fixed and surveyed by Reynolds; stipulation filed as explanatory of and in conjunction with stipulation of March 29, 1877.	Jurupa	Abel Stearns.
Sept. 25, 1877	Protest of Hougaton <i>et als.</i> to Surveyor General Mandeville; decree of circuit court rejecting survey and ordering new one; statement of William B. Buckley; objections of George W. Hammett <i>et als.</i> to survey March 1, 1876; affidavit and protest of Martha A. Gorham; affidavit and protest of C. S. Whitcomb; affidavit and protest of George W. Hammett; objections to survey by Central Pacific Railroad Company; affidavit and objections to survey by O. S. Hough; objections of the United States to Bardman's survey, &c.; application United States district attorney and J. P. Howard to have the La Croze survey sent up for patent, April 19, 1876; affidavit of E. R. Carpenter; appearance for claimant, E. R. Carpenter, attorney; appearance E. A. Lawrence and H. W. Carpenter for claimants; appearance of H. W. Carpenter for self, Elam Brown <i>et al.</i> ; protest of Bernal <i>et al.</i> , marked "La Croze, Ex. one"; "Ex. H. S. A. No. 1"; proceedings before surveyor general, April 19, 1876; "Ex. H. S. A. No. 2," tracing to accompany depositions of Harrington, Hopkins, Bracon <i>et al.</i> ; "Ex. H. S. A. No. 3," map to accompany deposition of La Croze; "Ex. H. S. A. No. 4," extracts from depositions of Salvio Pacheco (see "Ex. No. 17"); "Ex. No. 1," copy of petition for order to return; survey, "Ex. No. 2," copy order to return; survey, "Ex. No. 3," copy of monition and certificate of service thereof; "Ex. No. 4," copy order on return of monition; "Ex. No. 5," copy of intervention of Lucy R. Jones and William B. Algard; "Ex. No. 6," copy of objections to survey by Moraga <i>et als.</i> ; "Ex. No. 7," copy of intervention of Jose Moraga <i>et als.</i> ; "Ex. No. 8," copy of intervention of Edison Adams <i>et als.</i> ; "Ex. No. 9," copy of objections of Edison Adams <i>et als.</i> ; "Ex. No. 10," copy deposition of H. C. Smith, &c.; "Ex. No. 11," copy of intervention of Edwin Brown; "Ex. 12," copy of	Laguna de los Palos Colarados.	Heirs of Joaquin Moraga and Juan Bernal.

H.—Statement of descriptive notes, decrees of court, &c.—Continued.

When sent.	Papers transmitted.	Name of claim.	To whom confirmed.
Sept. 25, 1877	stipulation of counsel, July 30, 1862; "Ex. No. 13," copy of deposition of R. C. Hopkins, and proof of service of notice of taking same; "Ex. No. 14," copy of map and certificate on file in office of clerk of United States district court; "Ex. No. 15," copy of deposition of Antonio Ma. Peralta; "Ex. No. 16," copy of deposition of Salvio Pacheco (see "U. S. A. No. 14"); "Ex. No. 17," copy of deposition of Jose de Jesus Martinez; "Ex. No. 18," copy of deposition of John La Croze; "Ex. No. 19," copy decree of confirmation United States Land Commission; "Ex. No. 20," (missing); "Ex. No. 21," copy of stipulation that map of "Highey's" survey be entered in case as evidence; "Ex. No. 22," copy of stipulation; brief by Mullan & Hyde; printed transcript on appeal, Thomas A. Brown, attorney for appellant, H. W. Carpenter, attorney for respondent; opening argument for United States and contestants, John P. Howard, attorney; record of evidence (2 volumes, bound;) certified copy certificate of publication; transcript of proceedings before United States surveyor general, April 19, 1876 (see No. 17;) instructions dated February 3, 1875, to William T. Boardman; surveyor general's opinion; protest and petition, Mullan & Hyde; supplemental report of surveyor general.	Laguna de los Palos Colarados.	Heirs of Joaquin Moraga and Juan Bernal.
Oct. 24, 1877	Certified copies of the decree of the United States district court, northern district California, April 8, 1858; dismissing appeal and decree of same court, October 20, 1862; substituting heirs, &c.		
Nov. 5, 1877	Certified copy order to return survey into court, December 3, 1860.		
Dec. 29, 1877	Brief; letter from surveyor general to Mullan & Hyde, inclosing copy of department letters of 19th November, 1877, and allowing them thirty days to file certified copies of record of court, &c.; certified copy of instructions to John La Croze to make final survey; certified copy of entry in "record of rancho surveys," showing a date of filing decree and issuing instructions; tracing claims to be copy of original map of La Croze's survey.		
May 9, 1878	Waiver of appeal signed by E. A. Lawrence and H. W. Carpenter, attorneys for sundry parties in interest.		
Jan. 20, 1878	Appeal of Mullan & Hyde from General Land Office, of April 13, 1878.		
Dec. 20, 1877	Descriptive notes; 5 skeleton maps; plat of survey; certified copy, decree of confirmation United States district court; certified copy; order of United States district court making said decree final; certified copy order United States district court substituting the heirs and representatives of claimants as confirmees; certified copy decree of United States circuit court ordering new surveys; certified copy of certificate of advertisement.		
Oct. 18, 1877	Letter of Mullan & Hyde, asking for return of papers, &c.		
Nov. 20, 1877	Appeal by Messrs. Hartman & Haley, attorneys for claimants.	Las Virgines.....	Maria A. Machardo.

H.—Statement of descriptive notes, decrees of court, &c.—Continued.

When sent.	Papers transmitted.	Name of claim.	To whom confirmed.
July 13, 1877	Petition for issuance of patent; stipulation that depositions may be opened; withdrawal of opposition to survey by Southern Pacific Railroad Company; stipulation and depositions before county clerk, Los Angeles County; proceedings before J. A. Robinson, United States commissioner; statement of case on part of claimants, Exhibit I; tracing of plat of Hancock's survey, "Exhibit 2, J. A. R."; colored map or sketch (original deseno); Exhibit 7, sketch; letter James T. Stratton, dated January 25, 1875, transmitting papers in case; schedule of papers transmitted with above letter; plat of survey marked "Ex. A., J. A. R.," field notes; certificate of advertisements, certified copies decrees and orders, district and supreme courts; certified copies title papers; protest by Southern Pacific Railroad Company; surveyor general's opinion; affidavits of E. H. McDonald, Jothan Bixbey, Juan C. Spulveda and William Money, dated 20th April, 1875; affidavit of Thomas Flint, dated April 30, 1875; letter Brittar, Grey & Drummond, dated May 17, 1875, requesting that papers be returned to surveyor general.	Los Palos Verdes	José L. Sepulveda.
Mar. 12, 1878	Letter from this office inclosing \$1, silver, for certified copy of letter on file, General Land Office, from H. S. Brooks, dated August 25, 1876.		
Feb. 8, 1878	Return of patent; letter to this office from E. O. T. Hastings, calling attention to the fact that the plat of survey accompanying the patent had not been approved by the General Land Office.	Moro Y. Cayacas	Jas. McKinley.
Jan. 3, 1878	Letter signed by Tully R. Wise, esq., attorney for the owners, asking a return of the evidence in the matter of the Norway survey; copy of a portion of the record showing objections of M. Stewart, attorney for the settlers.	Mission de la Purissima.	J. R. Malo.
Feb. 12, 1878	Testimony taken before county clerk of Santa Barbara County; testimony taken before J. A. Robinson, United States commissioner; deposition of A. B. Thompson before United States land commission; appearance of James F. Stewart as attorney for settlers, and notice that he will apply for leave to file record evidence and take testimony, &c.; protest of settlers against any change in Ferrell's survey which will affect their pre-emption claims; protest of Albert Dibble, on behalf of self and other owners, against Ferrell's survey; appearance and protest of Mullan & Hyde as attorneys for Lompoc and Mission Vieja de la Purissima; appearance and protest of Albert Dibble, for self and others, owners of Lompoc and Mission Vieja de la Purissima; filed December 14, 1877; protest of S. T. Burton, owner of rancho Jesus Maria, on the ground that the Ferrell survey laps over on the southeastern line of Jesus Maria; objections and protest of claimants to Ferrell survey as advertised October, 1877; supplemental protest by claimants; Exhibit A, certified copies traced of original title-papers; José Ramon Malo for Santa Rita; Exhibit B, translation of Exhibit A; Exhibit C, certified		

H.—Statement of descriptive notes, decrees of court, &c.—Continued.

When sent.	Papers transmitted.	Name of claim.	To whom confirmed.
Feb. 12, 1878	copy; decree of confirmation United States district court, and order making said decree final; José Ramon Malo for Santa Rita; Exhibit D, certified traced copies of deed of state from Pio Pico to Juan Temple; deed of conveyance from Juan Temple to J. R. Malo, and receipt given by Pico for portion of purchase-money; also certified copy of deposition of A. B. Thompson before board of United States land commissioners; Exhibit E, translation of above; Exhibit F, certified copies of decree of confirmation United States board of land commissioners; letter of Attorney-General of United States stating that appeal will not be prosecuted and order of United States district court dismissing appeal; Exhibit G, illustrated map showing boundaries of Santa Rita rancho; Exhibit H, extract from De Mofrie's "History of California and Oregon;" Exhibit I, decision of United States Supreme Court in case of Van Regnegan <i>vs.</i> Bolton; brief on behalf of settlers; points and authorities and brief by Mullan and Hyde; brief of Britton and Gray, in Lompoc contest, filed by Mullan and Hyde in this case; surveyor general's opinion; testimony taken before J. A. Robinson, United States commissioner.		
July 5, 1877	Letter from Frederick Mason to this office relating to survey.	Pueblo of San Francisco.	City of San Francisco.
Nov. 15, 1877	Printed memorial, in duplicate, of S. M. Tibbets, A. W. Simpson, <i>et al.</i> ; printed memorial, in duplicate, of Obed Chart and others; printed argument of Eug. B. Drake and C. R. Greathouse against Stratton survey duplicate; protest of the governor, attorney general, and surveyor general of the State of California against any resurvey, so far as certain salt marsh and tule lands are concerned; stipulation by J. W. Dwinelle, W. E. Burnett, H. H. Haight, J. M. Coghlan.		
Nov. 16, 1877	Appearance of Harmon and Galpin as attorneys for parties interested in lands embraced in Stratton's survey, and for parties interested in swamp and tide lands outside said survey and adjoining same, claiming under the State of California pre-emption claim of Daniel Ryan; certified copy of the petition of Daniel Ryan to the board of supervisors of the city and county of San Francisco; affidavit of Daniel Ryan, dated December 17, 1870; affidavit of Calvin E. Woodbury, dated December 22, 1870; tracing showing "reservation line according to President Fillmore's proclamation."		
Dec. 27, 1877	Statement of Theodore H. Hettell, attorney for S. M. Tibbets, A. M. Simpson, and others, in the matter of the survey of the rancho.		
Aug. 27, 1877	Request of Titus Hale and others for delivery of patent; certificate of the county recorder of Santa Cruz County.	San Andreas.....	G. Castro <i>et al.</i>
Oct. 13, 1877	Plat of survey; seven skeleton maps; descriptive notes; certified copy order United States district court dismissing appeal; certified copy decree of confirmation and extract from minutes United States district court;	San Jacinto, Nuevo y Potrero.	T. W. Sutherland, guardian, &c.

H.—Statement of descriptive notes, decrees of court, &c.—Continued.

When sent.	Papers transmitted.	Name of claim.	To whom confirmed.
Oct. 13, 1877	certified copy certificate of advertisement; copy expediente; tracing of plat of rancho as located by surveyor general in 1867; Exhibit A, copy of deed from Ysabel Pedroernda Alteruarno to Jas. G. Dawney; Exhibit B, diagram showing relative location on face of county of respective tracts; Exhibit D, grant and diseño San Jacinto Viejo; Exhibit E, juridical possession San Jacinto Viejo; Exhibit G, copy grant San Jacinto Nuevo y Potrero; Exhibit I, deposition of Jasper O'Farrell; objections of Gustave Mahe Camilo Martin, T. L. Meyer, and T. J. Gallagher to survey; proceedings and stipulation.	San Jacinto, Nuevo y Potrero.	T. W. Sutherland, guardian, &c.
Aug. 15, 1877	Plat of survey 15; skeleton maps; descriptive letter from Lee H. Ult to surveyor general, inclosing affidavit and protest against Reynolds survey, dated July 2, 1877; protest against survey certificate of county clerk of San Diego County, that L. J. Crombie is authorized to administer oaths; affidavit of Amos Buckman; affidavit of Manuel Cota; affidavit of Herbert Crouch; affidavit of D. R. Foss; affidavit of O. A. Stewart; affidavit of Lee H. Ult.	Santa Margarita y las Flores.	Pio Pico <i>et al.</i>
Aug. 30, 1877	Affidavit of T. A. Case		
Jan. 19, 1878	Affidavit of J. F. Foster; affidavit of Thomas Alvarado, C. J. Fox; and C. Scott; William Minto, R. C. Hopkins.		
n . 21, 1878	Affidavit of W. J. Rumble		
Oct. 9, 1877	Letter to General Land Office, requesting return of a letter which was forwarded with the Saucelito papers, addressed to Colonel Humphreys by one Manuel Torres.	Saucelito	G. A. Richardson.
Nov. 21, 1877	Letter from S. R. Throckmorton, in reply to request from this office to furnish certain papers asked for in your letter D, 24th October, 1877.		
Oct. 8, 1877	Letter from Manuel Torres to John T. Humphreys, requesting him to appear as attorney for executors, &c.; letter from J. T. Humphreys; order and decree of United States district court, &c.		
	Certified copy of opinion of court, February 26, 1877.	Saucelito	G. A. Richardson.
	Certified copy of decree of court; motion and order of substitution of heirs of Richardson, and order vacating same; notice of S. R. Throckmorton to surveyor general; communication from S. R. Throckmorton to surveyor general; notice from John B. Howard that J. T. Humphreys has been substituted in his place as attorney; certified copy of order of United States district court to return survey to surveyor general; certified copy of order dismissing petition of Hilaria Reed; order denying leave to file objections to survey or contest the same, and further order directing plat of survey to be returned to surveyor general; appearance of J. T. Humphreys as attorney for Manuel Torres; executor, &c.; certified copy, motion, and decree of United States district court, suggesting the death of claimant and substituting the heirs as claimants; brief of John B. Howard and John B. Felton; United States surveyor general's letter.		
July 6, 1877	Certified copy of record of advertisement of the Cornwall tract.	Soulapilla	Gormley, Brackett Cornwall, Watkins, and Vasquez.

Statement of descriptive notes, decrees of court, &c.—Continued.

When sent.	Papers transmitted.	Name of claim.	To whom confirmed.
Sept. 12, 1877	Appeal by L. Aldrich, esq., attorney for Daniel Brown; appeal by F. D. Colton, attorney for S. A. Marshall, James Marshall, William Brown, and J. Fiori.		
June 27, 1878	Contract and bond of J. A. Benson, deputy surveyor, dated 25th instant, for survey of Watkins tract and amendment of survey of Vasquez tract in accordance with decision of the honorable Secretary of the Interior, June 27, 1877.		
Dec. 23, 1877	Account of advertising of Frederick McCrellish & Co.	Paso de Bartolo	

27 I

I.—Statement of special deposits for the survey of public lands in California during the fiscal year 1877-'78.

Name of depositor.	Date of deposit.	Amount of deposit.				Name of deputy.	Location of survey.	Meridian.	Remarks.
		Salaries.		Surveys.					
		Individual.	Total.	Individual.	Total.				
Le Roy Perkins.....	July 12, 1877	\$20 00	.....	\$180 00	.....	A. A. Smith.....	Township 29 north, range 12 east...	Mount Diablo...	
Henry Snyder.....	July 12, 1877	20 00	.....	180 00	.....	do.....	do.....	do.....	
Enoch Talbot.....	July 12, 1877	10 00	\$50 00	90 00	\$450 00	do.....	do.....	do.....	
Theodore Jones.....	July 19, 1877	75 00	.....	125 00	.....	J. R. Glover.....	Township 23 north, range 15 west...	do.....	
Mat Bach.....	July 19, 1877	25 00	100 00	79 02	204 02	do.....	do.....	do.....	
Central Pacific Railroad by connection with Western Pacific Rail- road Company.	July 30, 1877	15 00	15 00	10 00	10 00	.....	List No. 6, Stockton land district...	do.....	
J. R. Duncan.....	Aug. 9, 1877	60 00	60 00	103 00	103 00	J. M. Doyle.....	Township 16 north, range 5 west...	Mount Diablo...	
John McColloch.....	Aug. 10, 1877	15 00	.....	185 00	.....	J. R. Glover.....	Township 7 north, range 21 east...	do.....	
R. J. Rutter.....	Aug. 10, 1877	15 00	.....	185 00	.....	do.....	do.....	do.....	
T. E. Rutter.....	Aug. 10, 1877	15 00	.....	185 00	.....	do.....	do.....	do.....	
C. B. Gregory.....	Aug. 10, 1877	12 78	57 78	187 22	742 22	do.....	do.....	do.....	
J. B. Ranville.....	Aug. 13, 1877	12 78	.....	187 22	.....	do.....	do.....	do.....	
R. W. Brownfield.....	Aug. 13, 1877	15 00	27 78	185 00	372 22	do.....	do.....	do.....	
Jasper Glover.....	Aug. 14, 1877	42 86	42 86	157 14	157 14	do.....	Township 22 north, range 15 west...	do.....	
Jacinto Berryessa.....	Aug. 16, 1877	25 00	25 00	36 00	36 00	T. J. Dewoody.....	Township 8 north, range 3 west...	do.....	
Louis F. Trotta.....	Aug. 20, 1877	25 00	.....	175 00	.....	J. R. Glover.....	Township 22 north, range 17 west...	do.....	
Christ. Hanson.....	Aug. 20, 1877	25 00	.....	175 00	.....	do.....	do.....	do.....	
Peter Sommer.....	Aug. 20, 1877	25 00	75 00	175 00	525 00	do.....	do.....	do.....	
E. F. Shaw.....	Aug. 21, 1877	25 00	25 00	175 00	175 00	do.....	do.....	do.....	
Mathias de Triestas Noria	Aug. 25, 1877	100 00	100 00	100 00	100 00	do.....	do.....	do.....	
F. F. Mobley.....	Aug. 27, 1877	13 00	.....	.....	.....	N. C. Miller.....	Township 17 north, range 8 east...	do.....	
Do.....	Aug. 27, 1877	14 00	.....	.....	.....	do.....	do.....	do.....	
Do.....	Aug. 27, 1877	13 00	40 00	.....	.....	do.....	do.....	do.....	
Thomas Delano.....	Sept. 11, 1877	60 00	.....	140 00	.....	John Goldsworthy	Township 6 north, ranges 14 and 15 west.	San Bernardino.	
Charles H. Delano.....	Sept. 11, 1877	10 00	70 00	50 00	190 00	do.....	do.....	do.....	
Joseph L. Duchay.....	Sept. 11, 1877	50 00	50 00	.....	.....	F. J. Dewoody.....	Township 11 north, range 8 west...	Mount Diablo.	
J. C. Sivals.....	Sept. 13, 1877	30 00	.....	100 00	.....	J. G. Parke.....	Township 11 north, ranges 17 and 18 west.	San Bernardino.	
Francisco Acuna.....	Sept. 13, 1877	30 00	.....	70 00	.....	do.....	do.....	do.....	
James Winter.....	Sept. 13, 1877	40 00	100 00	160 00	330 00	do.....	do.....	do.....	
Shelby Bishop.....	Sept. 14, 1877	25 00	.....	129 00	.....	James E. Woods..	Township 20 north, range 14 west...	Mount Diablo.	
L. Chassade.....	Sept. 14, 1877	25 00	.....	175 00	.....	do.....	do.....	do.....	

James Farley.....	Sept. 14, 1877	25 00	100 00	175 00	654 00	do	do	do	do
Thomas Mallet.....	Sept. 14, 1877	25 00	100 00	175 00	do	do	do	do	do
John C. Talkington.....	Sept. 14, 1877	20 00	do	132 00	do	do	Township 22 north, range 14 west	do	do
N. W. Ward.....	Sept. 14, 1877	20 00	do	180 00	do	do	do	do	do
Henderson Taylor.....	Sept. 14, 1877	20 00	do	180 00	do	do	do	do	do
James D. Ward.....	Sept. 14, 1877	20 00	do	180 00	do	do	do	do	do
John M. Dill.....	Sept. 14, 1877	20 00	100 00	180 00	852 00	do	do	do	do
Ramon Miranda.....	Sept. 26, 1877	50 00	do	150 00	do	A. L. Cervantes	Township 33 south, range 14 east	do	do
Dolores Herrera.....	Sept. 26, 1877	50 00	100 00	150 00	do	do	do	do	do
Antonio Moraga.....	Sept. 26, 1877	do	do	50 00	do	do	do	do	do
Felipe Moraga.....	Sept. 26, 1877	do	do	55 00	405 00	do	do	do	do
Hans Anderson.....	Sept. 27, 1877	50 00	50 00	150 00	150 00	J. R. Glover	Township 22 north, range 17 west	do	do
A. G. Cormick.....	Sept. 28, 1877	56 00	do	144 00	do	Thos. S. Stephens	Township 5 south, range 4 east	Humboldt	do
L. H. Rennick.....	Sept. 28, 1877	38 00	do	114 00	do	do	do	do	do
J. M. Cornick.....	Sept. 28, 1877	56 00	150 00	144 00	402 00	do	do	do	do
W. C. Martin.....	Sept. 29, 1877	do	do	71 50	71 50	John Goldsworthy	Township 1 north, range 9 west	San Bernardino	do
Henry Alexander.....	Sept. 29, 1877	do	do	200 00	do	L. F. Cooper	Township 15 north, range 1 west	Humboldt	do
David R. Griffin.....	Sept. 29, 1877	do	do	190 00	do	do	do	do	do
Edward Hine.....	Sept. 29, 1877	do	do	29 00	419 00	do	do	do	do
Timothy Monroe.....	Oct. 5, 1877	30 00	30 00	70 00	70 00	J. R. Glover	Township 7 north, range 22 east	Mount Diablo	do
William Sulloway.....	Oct. 6, 1877	do	do	100 00	do	William Minto	Township 40 north, range 4 west	do	do
J. H. Sisson.....	Oct. 6, 1877	50 00	50 00	100 00	200 00	do	do	do	do
C. V. Fowler.....	Oct. 10, 1877	25 00	do	175 00	do	M. A. Nurse	Township 10 north, range 3 west	do	do
David Anderson.....	Oct. 10, 1877	40 00	do	160 00	do	do	do	do	do
B. T. Fowler.....	Oct. 10, 1877	10 00	do	19 00	do	do	do	do	do
F. E. Fowler.....	Oct. 10, 1877	25 00	100 00	175 00	529 00	do	do	do	do
H. F. Jones.....	Oct. 15, 1877	35 00	35 00	73 14	73 14	James E. Woods	Township 16 north, range 14 west	do	do
David Carson.....	Oct. 18, 1877	25 00	do	175 00	do	J. R. Glover	Township 16 north, range 11 west	do	do
John F. Lovering.....	Oct. 18, 1877	25 00	do	175 00	do	do	do	do	do
Lewis B. Arnold.....	Oct. 18, 1877	25 00	75 00	128 85	478 85	do	do	do	do
William B. Harris.....	Oct. 25, 1877	30 00	do	170 00	do	do	Township 15 north, range 11 west	do	do
John H. Brown.....	Oct. 25, 1877	30 00	do	170 00	do	do	do	do	do
James Hughes.....	Oct. 25, 1877	10 00	70 00	42 85	382 85	do	do	do	do
P. H. McGrew.....	Oct. 25, 1877	30 00	do	170 00	do	do	Township 1 south, range 2 west	do	do
Isaac Merrit.....	Oct. 25, 1877	30 00	do	170 00	do	do	do	do	do
John V. Benson.....	Oct. 25, 1877	20 00	80 00	30 00	370 00	do	do	do	do
Do.....	Oct. 25, 1877	20 00	do	80 00	do	do	Township 2 south, range 2 west	do	do
C. L. Weeks.....	Oct. 25, 1877	40 00	60 00	160 00	240 00	do	do	do	do
W. B. Atterbury.....	Oct. 25, 1877	25 00	25 00	do	do	A. L. Cox	Township 7 north, range 7 west	do	do
Edward Woodruff.....	Oct. 27, 1877	25 00	25 00	do	do	J. T. Pennington	Township 14 north, range 3 east	do	do
C. F. Edmunds.....	Nov. 7, 1877	30 00	30 00	30 00	30 00	James E. Woods	Township 16 north, range 14 west	do	do
Henry Doty.....	Nov. 9, 1877	66 00	66 00	109 00	109 00	A. S. Cooper	Township 5 north, range 29 west	San Bernardino	do
John Huff.....	Nov. 10, 1877	do	do	100 00	do	James E. Woods	Township 19 north, range 15 west	Mount Diablo	do
J. N. Squires.....	Nov. 10, 1877	25 00	do	175 00	do	do	do	do	do
Philip Wyatt.....	Nov. 10, 1877	25 00	do	175 00	do	do	do	do	do
J. M. Stanley.....	Nov. 10, 1877	25 00	do	175 00	do	do	do	do	do
A. E. Sherwood.....	Nov. 10, 1877	25 00	100 00	175 00	do	do	do	do	do
Reuben Thompson.....	Nov. 10, 1877	do	do	25 00	825 00	do	do	do	do
John W. Dixon.....	Nov. 14, 1877	30 00	30 00	20 00	20 00	Thos. L. Stephens	Township 24 north, range 16 west	do	do

\$43.14 of this deposit
applied to the pay-
ment of balance ac-
count T. H. Perrin.

I.—Statement of special deposits for the survey of public lands in California, &c.—Continued.

Name of depositor.	Date of deposit.	Amount of deposit.				Name of deputy.	Location of survey.	Meridian.	Remarks.
		Salaries.		Surveys.					
		Individual.	Total.	Individual.	Total.				
Charles Robertson	Nov. 22, 1877	\$25 00	\$25 00	.....	.....	R. M. Wilson	Township 25 north, range 11 east	Mount Diablo	
Sallie H. Batchelder	Nov. 22, 1877	75 00	75 00	\$93 00	.....	William Minto	Township 20 south, range 8 east	do	
J. O. Batchelder	Nov. 22, 1877	75 00	150 00	93 00	\$186 00	do	do	do	
Enoch S. Talbot	Nov. 28, 1877	100 00	100 00	.....	.....	A. A. Smith	Township 29 north, range 12 east	do	
W. A. Witte	Nov. 28, 1877	75 00	75 00	95 00	95 00	A. G. Ruxton	Township 4 south, range 8 west	San Bernardino	
James P. Cunningham	Dec. 11, 1877	20 00	20 00	180 00	.....	M. F. Reilly	Township 21 north, range 13 west	Mount Diablo	
Alexander Fowler	Dec. 11, 1877	20 00	20 00	180 00	.....	do	do	do	
William H. Forse	Dec. 11, 1877	20 00	20 00	180 00	.....	do	do	do	
J. W. Johnson	Dec. 11, 1877	9 67	69 67	40 33	580 33	do	do	do	
A. H. Cleveland	Dec. 26, 1877	60 00	60 00	.....	.....	L. F. Cooper	Township 15 north, range 1 west	Humboldt	
Jacob Bergman	Dec. 26, 1877	50 00	50 00	150 00	.....	M. G. Wheeler	Township 8 south, range 1 east	San Bernardino	
James C. Fain	Dec. 26, 1877	50 00	100 00	150 00	300 00	do	do	do	
A. J. Rankin	Dec. 29, 1877	50 00	50 00	.....	.....	H. H. Sanford	Township 19 north, range 1 east	Mount Diablo	
W. W. Ingraham	Jan. 4, 1878	80 00	80 00	120 00	120 00	M. G. Wheeler	Township 11 south, range 1 east	San Bernardino	
Eugene De Atenay	Jan. 5, 1878	50 00	50 00	.....	.....	H. H. Sanford	Township 17 north, range 6 west	Mount Diablo	
William G. Walker	Jan. 16, 1878	40 00	40 00	85 00	.....	James E. Woods	Township 20 north, range 15 west	do	
M. Kelly	Jan. 16, 1878	40 00	40 00	85 00	.....	do	do	do	
W. J. Blair	Jan. 16, 1878	20 00	100 00	74 00	244 00	do	do	do	
John Welch	Jan. 21, 1878	100 00	100 00	108 00	108 00	R. F. Herrick	Township 1 south, range 2 west	Humboldt	
County judge Mono County, per B. B. Minor, attorney.	Feb. 1, 1878	25 00	25 00	75 00	75 00	J. R. Glover	Township 4 north, range 27 east	Mount Diablo	
A. B. Smallwood	Feb. 1, 1878	35 00	35 00	.....	.....	G. W. Lakin	Township 30 south, range 12 east	do	Additional deposit.
Central Pacific Railroad Company successor by construction to Western Pacific Railroad Company.	Feb. 13, 1878	18 00	18 00	36 00	36 00	do	List No. 7, Stockton land district	do	
Wm. Harvey Carpenter	Feb. 18, 1878	20 00	.....	80 00	.....	D. F. Spurr	Township 12 north, range 9 west	do	
James Tyler	Feb. 18, 1878	30 00	50 00	170 00	250 00	do	do	do	
B. B. Minor, attorney for county judge of Mono County.	Mar. 7, 1878	25 00	25 00	.....	.....	J. R. Glover	Township 4 north, range 27 east	do	Additional deposit.
Goodall & Perkins	Mar. 27, 1878	70 00	70 00	.....	.....	Thomas P. Smith	Township 15 north, range 17 west	do	
Horace Knight	Apr. 3, 1878	38 00	.....	166 00	.....	Alexander McKay	Township 44 north, range 7 west	do	
Marshall Short	Apr. 3, 1878	37 00	75 00	166 00	332 00	do	do	do	

Name	Date	Acres	Value	Additional deposit.	Township	Range	Section	County
Newton Cain	Apr. 17, 1878	34 00	166 00		Township 13 north,	range 4 west	do	do
C. S. Powell	Apr. 17, 1878	34 00	166 00		do	do	do	do
William Phelps	Apr. 17, 1878	46 00	154 00		do	do	do	do
Jeremiah Powell	Apr. 17, 1878	11 00	125 00	486 00	do	do	do	do
C. F. Edmunds	May 11, 1878			6 63	Township 16 north,	range 14 west	do	do
Noble H. McGinnis	May 23, 1878			43 00	Township 10 north,	range 4 west	do	do
George H. Clark	May 23, 1878	75 00	75 00	168 00	do	do	do	do
Gerald E. Ward	June 12, 1878	62 00	62 00	150 00	Township 13 north,	range 7 west	do	do
J. H. Bostwick	June 13, 1878	22 00	22 00	18 00	Township 8 north,	range 4 west	do	do
H. M. Streeter	Mar. 30, 1878			10 00	Township 2 south,	range 5 west	do	do
Sturgess Lowell	Mar. 30, 1878			10 00	do	do	do	San Bernardino
George Miller	Mar. 30, 1878			50 00	do	do	do	do
Mr. Bowe	Mar. 30, 1878			5 00	do	do	do	do
J. C. Thorn	Mar. 30, 1878			10 00	do	do	do	do
E. R. Pierce	Mar. 30, 1878			10 00	do	do	do	do
E. A. Ball	Mar. 30, 1878			5 00	do	do	do	do
A. J. Turogood	Mar. 30, 1878	20 00		100 00	do	do	do	do
Rev. Mr. Wright	Mar. 30, 1878	10 00			do	do	do	do
Mr. Perrell	Mar. 30, 1878	10 00			do	do	do	do
Seneca La Ren	Mar. 30, 1878	10 00			do	do	do	do
Edwin Hart	Mar. 30, 1878	20 00			do	do	do	do
J. B. Summons	Mar. 30, 1878	10 00			do	do	do	do
Hattie L. Traver	Mar. 30, 1878	20 00			do	do	do	do
James H. Vive	Mar. 30, 1878	10 00			do	do	do	do
W. O. Price	Mar. 30, 1878	10 00			do	do	do	do
D. A. Coddington	Mar. 30, 1878	10 00			do	do	do	do
P. D. Cover	Mar. 30, 1878	5 00			do	do	do	do
Cover & McCoy	Mar. 30, 1878	5 00	140 00		do	do	do	do
Mrs. Sarah Brown	May 24, 1878			50 00	Township 4 north,	range 9 west	do	do
S. A. Marshall	June 26, 1878			10 00	Township 3 north,	range 8 west	do	Mount Diablo
Do	June 26, 1878			20 00	Township 4 north,	range 8 west	do	do
A. W. Rose	June 27, 1878	50 00	50 00	120 00	Township 4 south,	range 27 east	do	do
Do	June 27, 1878	50 00	50 00	60 00	Township 3 south,	range 27 east	do	do
A. P. Martin	June 28, 1878	125 77			Township 17 south,	range 14 west	do	do
Peter M. Mallory	June 28, 1878	50 00			do	do	do	do
Charles C. Chamberlain	June 28, 1878	50 00	225 77		do	do	do	do
Total			4, 121 86	13, 190 90				

J.—Statement of special deposits for office work in the survey of mining claims in California during the fiscal year 1877-'78.

Name of surveyor.	Name of depositor.	Date of deposit.	Deposit for salaries.	Name of mine.	Location of mine.	Remarks.
Charles W. Hendel	W. R. Morgan	July 3, 1877	\$40 00	Mount Pleasant placer mine	Plumas County	Additional deposit.
D. D. Reeves	Daniel Norcross	July 5, 1877	40 00	Esmeralda and Hercules mines	Alpine County	
William Sharp	Alex. Brizard	July 18, 1877	40 00	Horseshoe-Bar placer mine	Humboldt County	
R. B. Thomas	John Schroeder	July 12, 1877	40 00	Schroeder placer mine	Mariposa County	
H. S. Bradley	G. Dossol	July 21, 1877	40 00	Derbec blue gravel mine	Nevada County	
Samuel Bethell	William Muir	July 26, 1877	100 00	Keystone, Robert Bentley, Golden Gate, and Eldorado mines.	Placer County	Instructions issued to R. M. Wilson, subsequently J. G. Mather.
Charles Kaufman	J. G. Riley	July 26, 1877	40 00	Keystone mine	Inyo County	
Do	do	July 26, 1877	40 00	Mimetta Belle mine	do	
Do	do	July 26, 1877	40 00	Mountain View mine	do	
R. M. Wilson	S. F. Gashwiler	July 27, 1877	40 00	Ancho mine	Sierra County	
William L. McKim	R. Breese et al	July 30, 1877	20 00	Slavonia placer mine	Amador County	Additional deposit.
Alex. McKay	J. Cannon	July 31, 1877	20 00	Emigrant quartz mine	Siskiyou County	
G. F. Deetken	James K. Byrne	Aug. 3, 1877	20 00	Alta Hill No. 3 gravel mine	Nevada County	
John La Croze	Nash Deep Gravel Mining Comp'y.	Aug. 8, 1877	120 00	Martin & Co., Barstow & Co., and Nash & Co. mines.	Trinity County	
Do	do	Aug. 8, 1877	80 00	Gibbons & Co., Lander, Mark & Co.'s mines.	do	
R. M. Wilson	John McBeth	Aug. 11, 1877	50 00	Monitor Consolidated mine and mill site.	Plumas County	Additional deposit.
Do	A. D. McIntyre	Aug. 11, 1877	25 00	Washington West Extension mine	do	
H. B. Shackleford	C. A. Garter	Aug. 11, 1877	40 00	Afterthought mine	Shasta County	
R. M. Wilson	Erie Mining Company	Aug. 11, 1877	40 00	Holland quartz mine and mill site	Nevada County	
Do	do	Aug. 11, 1877	40 00	Oliver quartz mine and mill site	do	
Do	Bunker Hill Mining Company	Aug. 13, 1877	80 00	Bunker Hill Gold Mining Company's mine and mill site.	Plumas County	Additional deposit.
James Champion	Robert Cryer et al	Aug. 20, 1877	40 00	Peabody quartz ledge	Nevada County	
A. B. Beauvais	R. B. Prince	Aug. 22, 1877	10 00	Altaville quartz mine and mill site	Calaveras County	
W. S. Lowdon	J. G. Irwin	Aug. 22, 1877	40 00	Montezuma mine	Trinity County	
A. Garrard	John F. Boyd	Aug. 24, 1877	40 00	John F. Boyd mill site	Mono County	
Do	Standard Gold Mining Company	Aug. 24, 1877	40 00	Standard mill site	do	Additional deposit.
Benj. Ross	C. B. Rendall	Aug. 25, 1877	20 00	Rendall placer mine	Amador County	
E. C. Uren	H. H. Brown	Aug. 30, 1877	40 00	U. S. Grant placer mine	Placer County	
M. D. Fairchild	Finley & Doty	Aug. 30, 1877	40 00	Finley & Doty placer mine	Siskiyou County	
Samuel Bethell	O. F. Griffin	Sept. 1, 1877	40 00	Ben Franklin quartz mine	Nevada County	
A. Herdman	Jesus Flores	Sept. 3, 1877	40 00	Oak Flat oil mine	Ventura County	This is for the "Adella gravel mine."
E. C. Uren	T. B. Ludlum	Sept. 3, 1877	40 00	Druid placer mine	Placer County	
R. M. Wilson	Ruby Gold Gravel Mining Comp'y.	Sept. 6, 1877	40 00	Ruby Gold Gravel Mining Company	Sierra County	
Do	A. Halsey	Sept. 6, 1877	40 00	Duke of Wellington quartz mine and mill site.	Alpine County	
Do	E. Green	Sept. 6, 1877	40 00	Lafayette quartz mine	do	
Do	R. E. Brewster	Sept. 6, 1877	40 00	Highland Mary quartz mine	do	

Do.....	C. W. White.....	Sept. 6, 1877	40 00	Union quartz mine.....	do.....	Additional deposit.
J. H. Wallace.....	J. H. Campbell.....	Sept. 8, 1877	40 00	Campbell & Co. placer mine.....	Placer County.....	
William Sharp.....	R. McCargar.....	Sept. 8, 1877	40 00	Alexander placer mine.....	Humboldt County.....	
E. C. Uren.....	H. H. Brown.....	Sept. 10, 1877	40 00	Uncle Abe placer mine.....	Placer County.....	
John Goldsworthy.....	J. B. Osborn.....	Sept. 10, 1877	160 00	Ingot, Syndicate, Bullion mines and mill site, first extension of Gun-sight mine.....	San Bernardino.....	
William S. Lowdon.....	G. W. Davis.....	Sept. 12, 1877	40 00	Black Bear gold quartz mine.....	Trinity County.....	
William L. McKim.....	William Avala.....	Sept. 12, 1877	40 00	Avala placer mine.....	Amador County.....	
A. B. Beauvais.....	Confidence Mining Company.....	Sept. 12, 1877	10 00	Jessie & Edith quartz mine.....	Tuolumne County.....	
W. S. Lillian.....	Robert Gardner.....	Sept. 12, 1877	40 00	Modoc mine.....	Inyo County.....	
L. G. Jones.....	Ruby Gold Gravel Mining Company.....	Sept. 13, 1877	40 00	Guatemala placer mine.....	Sierra County.....	
Do.....	do.....	Sept. 13, 1877	40 00	Extension placer mine.....	do.....	
E. C. Uren.....	P. M. Juergenson.....	Sept. 13, 1877	40 00	Occidental mine.....	Placer County.....	
G. H. Perrin.....	George Hearst.....	Sept. 13, 1877	40 00	Pochpovich mine.....	Amador County.....	
Do.....	do.....	Sept. 13, 1877	40 00	Loyal lode mine.....	do.....	
H. S. Bradley.....	D. R. McMilliken.....	Sept. 13, 1877	40 00	Bull Run copper mine.....	Nevada County.....	
James McGann.....	Spring Valley Mining and Irrigating Company.....	Sept. 13, 1877	40 00	Spring Valley Mining and Irrigating Company.....	Butte County.....	
R. M. Wilson.....	A. Halsey.....	Sept. 13, 1877	40 00	Wolf Creek quartz mine.....	Plumas County.....	
Do.....	do.....	Sept. 13, 1877	40 00	Evergreen gold mine.....	do.....	
W. S. Lowden.....	J. McMurrey.....	Sept. 13, 1877	20 00	Five Cent gulch placer mine.....	Trinity County.....	Additional deposit.
L. L. Hawkins.....	Lewis Chalmers.....	Sept. 13, 1877	150 00	I. X. L. mine and mill site.....	Alpine County.....	
C. W. Hendel.....	Peter Van Clief <i>et al</i>	Sept. 13, 1877	20 00	American Hill quartz mine.....	Sierra County.....	Additional deposit.
R. M. Wilson.....	A. Halsey.....	Sept. 13, 1877	40 00	Columbia quartz mine.....	Plumas County.....	
W. L. McKim.....	J. W. Hinkson.....	Sept. 13, 1877	40 00	Maryland quartz mine.....	Amador County.....	
L. L. Hawkins.....	Lewis Chalmers.....	Sept. 13, 1877	20 00	Saint Helena silver and lead mine.....	Alpine County.....	Additional deposit.
Samuel Bethell.....	A. B. Dibble.....	Sept. 13, 1877	40 00	Allison ranch ford mine.....	Nevada County.....	
R. M. Wilson.....	A. Halsey.....	Sept. 13, 1877	40 00	Kettle quartz mine.....	Plumas County.....	
Do.....	do.....	Sept. 13, 1877	40 00	Caledonia quartz mine.....	do.....	
Do.....	do.....	Sept. 13, 1877	40 00	Phoenix quartz mine.....	do.....	
Samuel Bethell.....	Herman Loeber.....	Sept. 13, 1877	40 00	Doig consolidated quartz mine.....	Placer County.....	
Do.....	do.....	Sept. 13, 1877	40 00	Peachy consolidated quartz mine and mill site.....	do.....	
H. F. Terry.....	N. Heath.....	Sept. 13, 1877	40 00	Union gold-bearing quartz mine.....	Calaveras County.....	
A. B. Beauvais.....	J. Hall.....	Sept. 13, 1877	10 00	Buchanan quartz mine and mill site.....	Tuolumne County.....	
L. L. Hawkins.....	Lewis Chalmers.....	Sept. 13, 1877	60 00	Acacia mine.....	Alpine County.....	Additional deposit.
R. M. Wilson.....	A. Halsey.....	Sept. 13, 1877	40 00	Brilliant quartz mine.....	Plumas County.....	
Do.....	do.....	Sept. 13, 1877	40 00	Jersey quartz mine.....	do.....	
Do.....	do.....	Sept. 13, 1877	40 00	Leitrim quartz mine.....	do.....	
Do.....	do.....	Sept. 13, 1877	40 00	Emerald quartz mine.....	do.....	
H. H. Sandford.....	W. J. Rickman.....	Sept. 13, 1877	10 00	South Honcut mine.....	Yuba and Butte Counties.....	Additional deposit.
C. W. Hendel.....	G. G. Clough.....	Sept. 13, 1877	20 00	Go Ahead, Original, and Extension placer mines.....	Sierra and Plumas Counties.....	Do.
Samuel Bethell.....	H. Loeber.....	Sept. 13, 1877	40 00	Crater Hill quartz mine.....	Placer County.....	
R. M. Wilson.....	Gray & Haven.....	Sept. 13, 1877	40 00	Mohawk placer mine.....	Plumas County.....	
Do.....	do.....	Sept. 13, 1877	40 00	Eureka Peak placer mine.....	do.....	
H. S. Bradley.....	Martin Ford <i>et al</i>	Sept. 13, 1877	40 00	General Grant mine.....	Nevada County.....	
Benjamin Ross.....	E. F. Taylor.....	Sept. 13, 1877	30 00	Kent placer mine.....	Amador County.....	
Charles J. Fox.....	J. B. Boyd.....	Sept. 14, 1877	60 00	Helvetia mine and mill site.....	San Diego County.....	
E. C. Uren.....	D. M. Hosmer.....	Sept. 14, 1877	35 00	Pioneer Flaming Company's mine.....	Placer County.....	Additional deposit.

J.—Statement of special deposits for office work in the survey of mining claims, &c.—Continued.

Name of surveyor.	Name of depositor.	Date of deposit.	Deposit for salaries.	Name of mine.	Location of mine.	Remarks.
A. B. Beauvais	D. D. Demorest	Sept. 15, 1877	\$40 00	Demorest quartz mine	Calaveras County	
R. M. Wilson	A. Halsey	Sept. 15, 1877	60 00	Gold Stripe quartz mine	Plumas County	
Do	do	Sept. 15, 1877	40 00	Rush Creek placer mine	do	
Do	do	Sept. 15, 1877	40 00	Rodgers' quartz mine	do	
Do	do	Sept. 15, 1877	40 00	Dixie placer mine	do	
Do	do	Sept. 15, 1877	40 00	Ruby quartz mine	do	
Do	do	Sept. 15, 1877	40 00	Smith & Martin mine	do	
William P. Reynolds	Walter Drews	Sept. 15, 1877	40 00	Robbins Association mine	Los Angeles County	
Charles Kauffman	Minnietta Bell Mining Company	Sept. 15, 1877	40 00	Kentuck silver mine	Inyo County	
H. S. Bradley	James Marriott	Sept. 18, 1877	40 00	Marriott placer mine	Nevada County	
E. Spaulding	C. H. Wyman	Sept. 18, 1877	40 00	Sacramento gravel mine	Sierra County	Additional deposit.
W. S. Lillian	Lone Star and Eclipse Consolidated Mining Company.	Sept. 20, 1877	10 00	Lone Star mine	Inyo County	
Do	do	Sept. 20, 1877	40 00	Eclipse mine	do	
J. Seeley	J. H. Cook	Sept. 20, 1877	40 00	Mountain View mine	do	
D. F. Spurr	O. H. McKee	Sept. 22, 1877	40 00	Geyser sulphur mine	Sonoma County	
E. C. Uren	James Hill	Sept. 24, 1877	40 00	Golden Bull placer mine	Nevada County	
R. B. Thomas	A. H. Brooks	Sept. 24, 1877	40 00	Doss quartz mine	Mariposa County	
W. S. Lowden	E. R. Smith & Co.	Sept. 25, 1877	10 00	Morrison gulch placer mine	Trinity County	Additional deposit.
Do	W. S. Lowden	Sept. 27, 1877	5 00	Harmon placer mine	do	Do.
J. M. Anderson	E. H. Miller	Sept. 29, 1877	20 00	Richelieu quartz mine	El Dorado County	
L. F. Cooper	Camp & Co.	Oct. 1, 1877	40 00	Washington Hill mine	Del Norte County	
William S. Lowden	William S. Lowden	Oct. 3, 1877	40 00	Copper Creek placer mine	Trinity County	Additional deposit.
A. G. Ruxton	R. S. Baker	Oct. 6, 1877	5 00	Pico oil springs	Los Angeles County	
R. H. Stretch	George A. Hulse	Oct. 11, 1877	40 00	Loyal lode mine	Amador County	
A. M. Jones	McNeal & Bennett	Oct. 13, 1877	40 00	McNeal placer mine	Siskiyou County	Additional deposit.
H. S. Bradley	J. A. Stidger	Oct. 15, 1877	5 00	Patterson mine	Nevada County	
H. H. Sandford	E. C. Erwin	Oct. 18, 1877	40 00	Erwin mine	Yuba County	
Benjamin Ross	E. F. Taylor	Oct. 24, 1877	40 00	Randall placer mine	Amador County	
R. M. Wilson	S. F. Gashwiler	Oct. 24, 1877	10 00	Ancho mine and mill site	Nevada County	Additional deposit.
E. C. Uren	H. H. Brown	Oct. 25, 1877	10 00	U. S. Grant mine	Placer County	Do.
A. R. Wheat	J. S. Lloyd	Oct. 25, 1877	20 00	Shot-gun quartz mine	Calaveras County	
R. H. Stretch	North Gover Mining Company	Oct. 26, 1877	40 00	North Gover mine	Amador County	
Alex. McKay	Joseph Cannon	Oct. 26, 1877	40 00	Emigrant mine	Siskiyou County	Additional deposit.
A. W. Keddle	John N. Blood	Oct. 30, 1877	20 00	Laura mine	Plumas County	
H. S. Bradley	John Hussey	Oct. 30, 1877	40 00	Hussey placer mine	Nevada County	
R. M. Wilson	J. H. Whitlock	Nov. 1, 1877	40 00	Plow Boy quartz mine	Plumas County	
Do	Sunnyside Mining Company	Nov. 3, 1877	40 00	Sunnyside west extension placer mine	do	
Do	do	Nov. 3, 1877	40 00	Sunnyside east extension placer mine	do	
R. B. Thomas	Henry Ohlmeier	Nov. 3, 1877	40 00	Henry Ohlmeier placer mine	Mariposa County	
R. M. Wilson	Occidental Placer Company	Nov. 7, 1877	40 00	Plumas Eureka Mining Company	Plumas County	
T. J. Dewoody	J. C. Sullinger	Nov. 8, 1877	40 00	Blue Peak mine	Napa County	
Samuel Bethell	A. B. Dibble	Nov. 9, 1877	40 00	Benjamin Franklin mine	Nevada County	Additional deposit.
H. H. Sandford	Dodson & Co.	Nov. 9, 1877	20 00	Kickapoo mine	Butte County	Do.
		Nov. 10, 1877	10 00			

G. F. Deitken	A. Robinson	Nov. 12, 1877	40 00	Fillbuster gravel mine	Nevada County	Additional deposit.
J. P. Dart	C. L. Street	Nov. 12, 1877	40 00	Zetna quartz mine	Tuolumne County	
J. M. Anderson	G. W. Knox	Nov. 12, 1877	15 00	Placerville placer mine	El Dorado County	
H. S. Bradley	James A. Stidger	Nov. 14, 1877	60 00	Patterson placer mine	Nevada County	
Alex. McKay	W. S. Young	Nov. 15, 1877	40 00	Pioneer Camp mine	Siskiyou County	
A. B. Beauvais	Henry Nuninger	Nov. 17, 1877	40 00	German Ridge quartz mine	Calaveras County	
A. Garrard	B. S. Kellogg	Nov. 19, 1877	40 00	Black Hawk gold mine	Mono County	
W. S. Lowden	W. S. Lowden	Nov. 19, 1877	20 00	Black Bear gold mine	Trinity County	
Alex. McKay	J. O. Welsh	Nov. 20, 1877	40 00	Welsh Placer mine	Siskiyou County	Additional deposit.
Do	do	Nov. 20, 1877	50 00	French Creek placer mine	do	
G. F. Deitken	A. J. Ridge	Nov. 26, 1877	40 00	Wilson and Lamarque quartz mine	Nevada County	
L. F. Cooper	Haas Brothers	Nov. 26, 1877	40 00	Howard placer mine	Del Norte County	
A. Garrard	W. H. Lent	Nov. 26, 1877	40 00	Bechtel gold mine	Mono County	
A. G. Winn	Antonio Silva	Dec. 3, 1877	40 00	Slate Hill placer mine	Placer County	
J. G. Jones	Henry and Patrick Grant	Dec. 3, 1877	45 00	Wisconsin Extension placer claims	Sierra County	
Do	P. Grant et al.	Dec. 3, 1877	45 00	Wisconsin placer claims	do	
William P. Reynolds	S. Riddell	Dec. 5, 1877	40 00	Terrace borax mine	San Bernardino County	
William L. McKim	Charles Bassett	Dec. 7, 1877	40 00	Capital mine	Amador County	
William Sharp	Alex. Brizard	Dec. 10, 1877	10 00	Horseshoe Bar placer mine	Humboldt County	Additional deposit.
William L. McKim	Benjamin Flint	Dec. 10, 1877	40 00	California quartz mine	Amador County	
Do	William De Witt	Dec. 12, 1877	100 00	De Witt mines	do	Additional deposit.
Charles J. Fox	Mountain Brow Gold and Silver Mining Company	Dec. 12, 1877	40 00	Canadian mine	San Diego County	
R. B. Symington	Berry Mitchell	Dec. 14, 1877	40 00	W. J. Lawrence placer mine	Placer County	
Charles F. Hoffman	Samuel L. Stanley	Dec. 15, 1877	40 00	Excelsior mine and mill site	Shasta County	
Do	John W. Popejoy	Dec. 15, 1877	40 00	Popejoy quartz mine	do	
Do	E. F. Crocker	Dec. 15, 1877	40 00	Crocker quartz mine and mill site	do	
Do	T. M. Popejoy	Dec. 15, 1877	40 00	Bully Hill quartz mine	do	
Do	Extra Mining Company	Dec. 15, 1877	40 00	Peruvian quartz mine	do	
Do	do	Dec. 15, 1877	40 00	Empire quartz mine	do	
G. F. Deitken	J. Bennellack	Dec. 17, 1877	40 00	Cabin Flat mine	Nevada County	Additional deposit.
A. W. Keddle	Thomas A. Brown	Dec. 18, 1877	20 00	Dutch Bar hydraulic mine	Plumas County	
H. S. Bradley	Moore's Flat Gravel Company	Dec. 19, 1877	40 00	Moore's Flat gravel mine	Nevada County	
A. Garrard	Bulwar Mining Company	Dec. 19, 1877	40 00	Ralston No. 1 mine	Mono County	
Do	do	Dec. 19, 1877	40 00	Ralston No. 2 mine	do	
Do	Standard Gold Mining Company	Dec. 19, 1877	40 00	West bullion mine	do	
R. M. Wilson	J. M. Livingston	Dec. 24, 1877	40 00	Empire mine and mill site	do	
Do	George W. Beaver	Dec. 24, 1877	40 00	Lady Alice quartz mine	do	
Do	Gray & Heaven	Dec. 24, 1877	40 00	Crescent quartz mine	do	
W. R. Wheat	C. V. Gottschalk	Dec. 26, 1877	20 00	Chavanne mine and mill site	Calaveras County	Additional deposit.
H. S. Bradley	Johnson & Cross	Dec. 31, 1877	10 00	Hill's sulphuret works	Nevada County	Additional deposit.
John Goldsworthy	Silas Pearson	Dec. 31, 1877	40 00	Eagle mine	Los Angeles County	
Do	do	Dec. 31, 1877	40 00	Mabel mine and mill site	do	
Charles W. Hendell	W. R. Morgan	Jan. 7, 1878	40 00	Mount Pleasant mine	Sierra County	Additional deposit.
William Crapo	Thomas Henning	Jan. 9, 1878	40 00	Ventura mine	Inyo County	
A. Garrard	Bodie Gold Mining Company	Jan. 17, 1878	40 00	Bodie gold mine	Mono County	
W. L. Lillian	B. Gardner	Jan. 18, 1878	160 00	Keyes Confidence Hearst and Lookout mine	Inyo County	
William Sharp	R. McCargan	Jan. 19, 1878	15 00	Alexander mine	Humboldt County	Additional deposit.
A. Garrard	William Irwin	Jan. 21, 1878	40 00	Bodie placer mine	Mono County	
J. B. Thompson	David Hays	Jan. 24, 1878	40 00	Rancheria placer mine	do	
A. W. Keddle	John N. Blood	Jan. 24, 1878	40 00	Crown Point mine	Plumas County	

J.—Statement of special deposits for office work in the survey of mining claims, &c.—Continued.

Name of surveyor.	Name of depositor.	Date of deposit.	Deposit for salaries.	Name of mine.	Location of mine.	Remarks.
A. W. Keddle.....	John N. Blood.....	Jan. 24, 1878	\$40 00	Indian Valley mine.....	Plumas County.....	
Do.....	do.....	Jan. 24, 1878	40 00	Summit quartz mine.....	do.....	
A. Garrard.....	William Willis.....	Jan. 24, 1878	80 00	Homestake and Stonewall mine.....	Mono County.....	
E. S. Thurston.....	Excelsior Water and Manufacturing Company.....	Jan. 25, 1878	40 00	Blue Gravel mine.....	Yuba County.....	
Do.....	do.....	Jan. 25, 1878	40 00	Rose's Bar, Pactolus & Babb mine.....	do.....	Excelsior.
Do.....	Enterprise Mining Company.....	Jan. 25, 1878	40 00	Enterprise mine.....	do.....	
W. L. McKim.....	William DeWitt.....	Jan. 28, 1878	40 00	Haley quartz mine.....	Amador County.....	
Samuel Bethell.....	Live Oak Mining Company.....	Jan. 29, 1878	40 00	Live Oak mine.....	Nevada County.....	
A. G. Ruxton.....	S. B. Caswell.....	Jan. 29, 1878	40 00	Wiley petroleum.....	Los Angeles County.....	
Benj. Ross.....	G. W. Klurg.....	Jan. 31, 1878	40 00	Eclipse quartz mine.....	Amador County.....	
William K. Boucher.....	A. G. Summers.....	Jan. 31, 1878	40 00	Summer's asbestos mine.....	Calaveras County.....	
Do.....	J. A. Byers.....	Jan. 31, 1878	40 00	Byer's asbestos mine.....	do.....	
M. G. Wheeler.....	E. W. Morse.....	Jan. 29, 1878	80 00	Oriflame mines and mill site.....	San Diego County.....	
William Sharp.....	W. G. Kirkham.....	Feb. 7, 1878	10 00	Kirkham placer mine.....	Humboldt County.....	Additional deposit.
Samuel Bethell.....	Home Gold and Silver Mining Company.....	Feb. 8, 1878	40 00	Home quartz mine.....	Nevada County.....	
William P. Reynolds.....	Haggin, Hearst & Reese.....	Feb. 11, 1878	60 00	New York silver, Alta silver, Lone View gold and San Francisco gold mines and slate range mill site.....	Kern County.....	
R. B. Thomas.....	A. G. Black.....	Feb. 11, 1878	40 00	Compromise mine.....	Mariposa County.....	
E. C. Uren.....	M. Byrne, jr.....	Feb. 12, 1878	40 00	Planet placer mine.....	Nevada County.....	
H. S. Bradley.....	A. Tain.....	Feb. 15, 1878	40 00	Tain quartz mine.....	do.....	
Charles F. Hoffman.....	S. L. Stanley.....	Feb. 25, 1878	20 00	Excelsior mine and mill site.....	Shasta County.....	Additional deposit.
A. Garrard.....	J. Bevolzhine.....	Feb. 28, 1878	40 00	Spaulding gold and silver mine.....	Mono County.....	
Do.....	H. G. Beasdel.....	Mar. 1, 1878	60 00	Red Cloud, Packard & Morton mines.....	do.....	
Charles W. Hendel.....	W. R. Morgan.....	Mar. 2, 1878	20 00	Mount Pleasant mine.....	Sierra County.....	Additional deposit.
A. B. Beauvais.....	C. L. Street.....	Mar. 11, 1878	40 00	Chaparral quartz mine.....	Tuolumne County.....	
Do.....	H. Nuninger.....	Mar. 11, 1878	20 00	German Ridge quartz mine and mill site.....	Calaveras County.....	Additional deposit.
Charles F. Hoffman.....	P. B. Cornwall.....	Mar. 12, 1878	49 00	Peerless quartz mine.....	Amador County.....	
R. B. Symington.....	W. J. Lorenz.....	Mar. 13, 1878	40 00	Lorenz placer mine.....	Placer County.....	Additional deposit.
J. M. Anderson.....	B. G. Parlow.....	Mar. 20, 1878	40 00	Young Harmon mine.....	El Dorado County.....	
A. B. Beauvais.....	Andrew Gerlach.....	Mar. 20, 1878	40 00	Buchanan quartz mine.....	Tuolumne County.....	
William P. Reynolds.....	J. B. Haggin.....	Mar. 21, 1878	60 00	Marsh & Kennedy mill site.....	Kern County.....	
J. G. Mather.....	John Leddy.....	Mar. 23, 1878	30 00	San Francisco mine.....	Placer County.....	
Do.....	do.....	Mar. 23, 1878	30 00	Excelsior mine (formerly called Enterprise).	do.....	
E. S. Thurston.....	James P. Pierce.....	Mar. 23, 1878	20 00	Excelsior mine.....	Yuba County.....	Additional deposit.
Do.....	do.....	Mar. 23, 1878	20 00	Blue Gravel mine.....	do.....	Additional deposit.
H. S. Bradley.....	G. G. Allan.....	Apr. 4, 1878	40 00	Hartford placer mine.....	Nevada County.....	
A. B. Beauvais.....	Henry Williams.....	Apr. 16, 1878	40 00	Gillis & Carrington quartz mine.....	Tuolumne County.....	
E. C. Uren.....	H. H. Jones.....	Apr. 29, 1878	20 00	Planet placer mine.....	Nevada County.....	Additional deposit.
A. R. Wheat.....	C. V. Gottschalk.....	May 1, 1878	60 00	Charanne mine.....	Calaveras County.....	Additional deposit.
L. F. Cooper.....	Camp & Company.....	May 13, 1878	20 00	Washington Hill mine.....	Del Norte.....	Additional deposit.

Owner	Date	Property	Value	County	Notes
T. R. Fillebrown	May 17, 1878	Lena mine	40 00	Kern County	
Do	May 17, 1878	Hidden Treasure mine	40 00	do	
J. M. Anderson	May 22, 1878	Young Harmon mine	20 00	El Dorado County	Additional deposit.
Do	June 3, 1878	Sardine mine	40 00	do	
William Minto	June 5, 1877	Head-light mine	40 00	Mono County	
Do	June 5, 1878	Mammoth mine	40 00	do	
Do	June 5, 1878	Mammoth No. 2 mine	40 00	do	
L. F. Cooper	June 11, 1878	Ambrose mine	5 00	Del Norte County	Additional deposit.
A. B. Beauvais	June 11, 1878	Gillis & Carrington's mine and mill site	20 00	Tuolumne County	Additional deposit.
H. S. Bradley	June 18, 1878	Hussey placer mine	40 00	Nevada County	Additional deposit.
A. Garrard	June 18, 1878	Bryant mine	40 00	Mono County	
Do	June 20, 1878	Hendricks & Co. placer mine	5 00	Butte County	Additional deposit.
William Jabine	June 20, 1878	German quartz mine	40 00	El Dorado County	
W. S. Lowden	June 20, 1878	Brown Bear gold quartz mine	40 00	Trinity County	
Do	June 20, 1878	Barted gold quartz mine	40 00	do	
J. M. Anderson	June 20, 1878	Buckeye Hill mine	40 00	El Dorado County	
T. R. Fillebrown	June 26, 1878	Relief Lode mine	30 00	Kern County	Resurvey.
John A. Brown	June 27, 1878	Henry Clay mine	40 00	Amador County	
			9,055 00		

K.—Statement of accounts of deputy surveyors paid from the appropriation for the survey of public lands in California during the fiscal year 1878.

Dr.		Cr.	
Date of account.	In favor of—	Date of contract.	Amount.
Oct. 13, 1877	L. D. Bond	July 14, 1877	\$1,762 39
Nov. 17, 1877	William Minto	Aug. 4, 1877	1,898 54
Nov. 22, 1877	W. F. Benson	July 20, 1877	2,919 63
Nov. 27, 1877	John Gilcrest	July 24, 1877	1,021 66
Dec. 10, 1877	E. J. Cahill	July 16, 1877	1,301 43
Dec. 20, 1877	William H. Carlton	Aug. 1, 1877	852 08
Dec. 20, 1877	William H. Carlton	Aug. 2, 1877	892 39
Jan. 9, 1878	M. F. Reilly	July 18, 1877	858 11
Feb. 1, 1878	J. M. Anderson	Aug. 7, 1877	1,672 86
Feb. 27, 1878	M. F. Reilly	Sept. 24, 1877	159 76
Mar. 29, 1878	M. F. Reilly	Sept. 24, 1877	1,521 13
June 27, 1878	William J. Lewis	July 18, 1877	828 38
June 27, 1878	William J. Lewis	July 18, 1877	207 41
June 28, 1878	William H. Norway	July 14, 1877	1,011 03
July 3, 1878	J. R. Glover	July 11, 1877	2,479 52
	Balance applicable to contracts made prior to July 1, 1878, and not yet audited		5,313 68
			24,700 00
		On account of—	Amount.
		By appropriation for the survey of public lands during the fiscal year ending June 30, 1878	\$17,700 00
		By transferring from appropriation for survey of private land claims, as per order of Commissioner dated April 11, 1878	4,000 00
		By further increase as per Commissioner's letter of April 11, 1878	3,000 00
			24,700 00

L.—Statement of account of appropriation for office rent, stationery, pay of messenger, and incidental expenses of the office of the United States surveyor general for California for the fiscal year ending June 30, 1878.

Dr.		Cr.	
		July 1, 1877	
Sept. 30, 1877	To amount of account for July, August, and September, first quarter (paid)	\$1,511 43	By appropriation for pay of messenger, office rent, and incidental expenses for the fiscal year ending June 30, 1878...
Dec. 31, 1877	To amount of account for October, November, and December, second quarter (paid)	715 41	
Mar. 31, 1878	To amount of account for January, February, and March, third quarter (paid)	641 25	
June 30, 1878	To amount of account for April, May, and June, fourth quarter (not paid)	590 70	By amount of deficiency
		3,458 79	458 79
			3,458 79

M.—Account of appropriation for the salary of surveyor general for California, during the fiscal year ending June 30, 1878.

Dr.		Cr.	
		July 1, 1877	
Sept. 30, 1877	To account of H. G. Rollins, first quarter	\$687 50	By appropriation for salary of the United States surveyor general for California, during the fiscal year ending June 30, 1878
Oct. 16, 1877	To account of H. G. Rollins, second quarter (fraction of)	119 56	
Dec. 31, 1877	To account of J. W. Ames, second quarter (fraction of)	567 93	
Mar. 31, 1878	To account of J. W. Ames, third quarter	687 50	
April 6, 1878	To account of J. W. Ames, fourth quarter (fraction of)	45 33	
June 30, 1878	To account of Theodore Wagner, fourth quarter (fraction of)	45 28	
June 30, 1878	To amount to balance	596 90	
		2,750 00	2,750 00

N.—Statement of account of appropriation for the compensation of clerks and draughtsmen in the office of the United States surveyor general for California during the fiscal year ending June 30, 1878.

Sept. 30, 1877 Dec. 31, 1877 Mar. 31, 1878	To amount paid clerks and draughtsmen, first quarter To amount paid clerks and draughtsmen, second quarter To amount paid clerks and draughtsmen, third quarter, as follows: J. H. Wildes, chief draughtsman R. C. Hopkins, keeper of archives E. D. Knight, clerk To amount to balance	\$4, 025 00 4, 588 57 575 00 500 00 310 00 1 43 10, 000 00	July 1, 1877	By appropriation for compensation of clerks and draughtsmen for the fiscal year ending June 30, 1878	\$10, 000 00
Mar. 31, 1878	The following salary accounts for the third quarter of fiscal year 1877-'78 are remaining unpaid: J. A. Robinson, chief clerk S. N. Bliven, clerk of accounts J. K. Carter, ranch clerk F. D. Ciprico, clerk D. F. O'Brien, clerk H. S. Smith, clerk Sallie E. Hosmer, clerk F. J. Page, clerk Jennie B. Gagan, clerk	625 00 500 00 450 00 116 64 156 66 95 00 113 33 110 00 116 67			
June 30, 1878	To amount of unpaid salary accounts for third quarter The following salary accounts for the fourth quarter of the fiscal year 1877-'78 are remaining unpaid: J. A. Robinson, chief clerk J. H. Wildes, chief draughtsman S. N. Bliven, clerk of accounts R. C. Hopkins, keeper of archives J. K. Carter, ranch clerk Theo. Reichert, mineral clerk Ellis Edwards, mineral clerk H. S. Smith, clerk D. F. O'Brien, clerk S. E. Hosmer, clerk J. B. Gagan, clerk F. J. Page, clerk	2, 283 30 625 00 575 00 500 00 500 00 450 00 98 90 222 53 242 31 69 23 128 57 135 16 141 76			5, 971 76
	To amount of unpaid salary accounts for third and fourth quarters.....				

O No. 1.—Statement of special individual deposits with the United States treasurer at San Francisco, Cal., during the fiscal year 1877-'78, for compensation of clerks and draughtsmen in the office of the United States surveyor general for California.

Number of certificate.	Date of deposit.	Name of depositor.	Location of survey.	Meridian,	Amount of deposit.
5	July 12, 1877	LeRoy Perkins	Township 29 north, range 12 east.	Mount Diablo.	\$20 00
6	July 12, 1877	Henry Snyder	do	do	20 00
7	July 12, 1877	Enoch S. Talbot	do	do	10 00
14	July 19, 1877	Theodore Jones	Township 23 north, range 15 west	do	75 00
15	July 19, 1877	Nat. Bach	do	do	25 00
25	July 30, 1877	Central Pacific Railroad Company by consolidation with Western Pacific Railroad Company.	List No. 6, Stockton land district.	do	15 00
36	Aug. 9, 1877	J. R. Duncan	Township 16 north, range 5 west	do	60 00
37	Aug. 10, 1877	John McColloch	Township 7 north, range 21 east.	do	15 00
38	Aug. 10, 1877	R. J. Rutter	do	do	15 00
39	Aug. 10, 1877	T. E. Rutter	do	do	15 00
40	Aug. 10, 1877	C. B. Gregory	do	do	12 78
47	Aug. 13, 1877	J. B. Ranville	do	do	12 78
48	Aug. 13, 1877	R. W. Brownfield	do	do	15 00
50	Aug. 14, 1877	Jasper Glover	Township 22 north, range 15 west	do	42 86
51	Aug. 16, 1877	Jacinto Berryessa	Township 8 north, range 3 west	do	25 00
52	Aug. 20, 1877	Louis F. Trotter	Township 22 north, range 17 west	do	25 00
53	Aug. 20, 1877	Christ. Hanson	do	do	25 00
54	Aug. 20, 1877	Peter Sommer	do	do	25 00
56	Aug. 21, 1877	E. F. Shaw	do	do	25 00
65	Aug. 25, 1877	Mathews de Frietas Novia.	do	do	100 00
70	Aug. 27, 1877	F. F. Mobley	Township 17 north, range 8 east.	do	13 00
71	Aug. 27, 1877	do	do	do	14 00
72	Aug. 27, 1877	do	do	do	13 00
89	Sept. 11, 1877	Thomas Delano	Township 6 north, ranges 14 and 15 west.	San Bernardino	60 00
90	Sept. 11, 1877	Charles H. Delano	do	do	10 00
91	Sept. 11, 1877	Joseph Duchay	Township 11 north, range 8 west	Mount Diablo	50 00
104	Sept. 13, 1877	J. C. Sivals	Township 11 north, ranges 17 and 18 west.	San Bernardino	30 00
105	Sept. 13, 1877	Francisco Acura	do	do	30 00
107	Sept. 13, 1877	James Winter	do	do	40 00
137	Sept. 14, 1877	Shelby Bishop	Township 20 north, range 14 west	Mount Diablo	25 00
138	Sept. 14, 1877	L. Chassade	do	do	25 00
139	Sept. 14, 1877	James Farley	do	do	25 00
140	Sept. 14, 1877	Thomas Mallat	do	do	25 00
136	Sept. 14, 1877	John C. Falkington	Township 22 north, range 14 west	do	20 00
141	Sept. 14, 1877	N. W. Ward	do	do	20 00
142	Sept. 14, 1877	Henderson Taylor	do	do	20 00
143	Sept. 14, 1877	James D. Ward	Township 22 north, range 14 west	do	20 00
144	Sept. 14, 1877	John M. Dill	do	do	20 00
175	Sept. 26, 1877	Ramon Miranda	Township 30 south, range 14 east.	do	50 00
176	Sept. 26, 1877	Dolores Herrera	do	do	50 00
180	Sept. 27, 1877	Hans Anderson	Township 22 north, range 17 west	do	50 00
181	Sept. 28, 1877	A. G. Cormick	Township 5 south, range 4 east.	Humboldt	56 00
182	Sept. 28, 1877	L. H. Remick	do	do	38 00
183	Sept. 28, 1877	J. M. Cormick	do	do	56 00
192	Oct. 5, 1877	Timothy Monroe	Township 7 north, range 22 east.	Mount Diablo	30 00
194	Oct. 6, 1877	J. H. Sisson	Township 40 north, range 4 west	do	50 00
198	Oct. 10, 1877	C. V. Fowler	Township 10 north, range 3 west	do	25 00
199	Oct. 10, 1877	Z. T. Fowler	do	do	10 00
200	Oct. 10, 1877	David Anderson	do	do	40 00
201	Oct. 10, 1877	F. E. Fowler	do	do	25 00
206	Oct. 15, 1877	H. F. Jones	Township 16 north, range 14 west	do	35 00
212	Oct. 18, 1877	David Carson	Township 16 north, range 11 west	do	25 00
213	Oct. 18, 1877	John Francis Lovering	do	do	25 00
214	Oct. 18, 1877	Lewis Bradford Arnold	do	do	25 00
219	Oct. 25, 1877	William B. Harris	Township 15 north, range 11 west	do	30 00
220	Oct. 25, 1877	John H. Brown	do	do	30 00
221	Oct. 25, 1877	James Hughes	do	do	10 00
222	Oct. 25, 1877	P. H. McGrew	Township 1 south, range 2 west	do	30 00
223	Oct. 25, 1877	Isaac Merrit	do	do	30 00
225	Oct. 25, 1877	John Vennette Benson	do	do	20 00
226	Oct. 25, 1877	do	Township 2 south, range 2 west	do	20 00
227	Oct. 25, 1877	C. L. Weeks	do	do	40 00
224	Oct. 25, 1877	W. B. Atterbury	Township 7 north, range 7 west	do	25 00
230	Oct. 27, 1877	Edward Woodruff	Township 14 north, range 3 east.	do	25 00
240	Nov. 7, 1877	C. F. Edmunds	Township 16 north, range 14 west	do	30 00
244	Nov. 9, 1877	Henry Doty	Township 5 north, range 29 west	San Bernardino	66 00
247	Nov. 10, 1877	J. N. Squires	Township 19 north, range 15 west	Mount Diablo	25 00
248	Nov. 10, 1877	Philip Wyatt	do	do	25 00
249	Nov. 10, 1877	J. M. Stanley	do	do	25 00
250	Nov. 10, 1877	A. E. Sherwood	do	do	25 00
255	Nov. 14, 1877	John M. Dixon	Township 24 north, range 16 west	do	30 00

O No. 1.—Statement of special individual deposits with the United States treasurer at San Francisco, Cal., &c.—Continued.

Number of certificate.	Date of deposit.	Name of depositor.	Location of survey.	Meridian.	Amount of deposit.
266	Nov. 22, 1877	Charles Robertson	Township 25 north, range 11 east..	Mount Diablo	\$25 00
268	Nov. 22, 1877	Sallie H. Batchelder ..	Township 20 south, range 8 east ..	do	75 00
269	Nov. 22, 1877	O. H. Batchelder	do	do	75 00
273	Nov. 28, 1877	Enoch S. Talbot.....	Township 29 north, range 12 east ..	do	100 00
274	Nov. 28, 1877	W. A. Witte	Township 4 south, range 8 west ..	San Bernardino	75 00
285	Dec. 11, 1877	James P. Cunningham.	Township 21 north, range 13 west.	Mount Diablo	20 00
286	Dec. 11, 1877	Alex. Fowler	do	do	20 00
287	Dec. 11, 1877	William H. Fox.....	do	do	20 00
288	Dec. 11, 1877	J. W. Johnson	do	do	9 67
312	Dec. 26, 1877	A. H. Cleveland.....	Township 15 north, range 1 west ..	Humboldt	60 00
314	Dec. 26, 1877	Jacob Bergman.....	Township 8 south, range 1 east ..	San Bernardino	50 00
315	Dec. 26, 1877	James C. Fain	do	do	50 00
316	Dec. 29, 1877	A. J. Rankin	Township 19 north, range 1 east ..	Mount Diablo	50 00
321	Jan. 4, 1878	W. W. Ingraham.....	Township 11 south, range 1 east ..	San Bernardino	80 00
322	Jan. 5, 1878	Eugene de Ardenay....	Township 17 north, range 6 west..	Mount Diablo	50 00
328	Jan. 16, 1878	William G. Walker ...	Township 20 north, range 15 west.	do	40 00
329	Jan. 16, 1878	M. Kelly.....	do	do	40 00
330	Jan. 16, 1878	W. J. Blair.....	do	do	20 00
334	Jan. 21, 1878	John Welsh	Township 1 south, range 2 west..	Humboldt	100 00
351	Feb. 1, 1878	County judge, Mono County, per B. B. Minor, attorney.	Township 4 north, range 27 east ..	Mount Diablo	25 00
352	Feb. 1, 1878	A. B. Smallwood	Township 30 south, range 12 east ..	do	35 00
370	Feb. 13, 1878	Central Pacific Railroad Company, successor by consolidation to Western Pacific Railroad Company.	List No. 7, Stockton land district ..	do	18 00
372	Feb. 18, 1878	William Harvey Carpenter.	Township 12 north, range 9 west..	Mount Diablo	20 00
373	Feb. 18, 1878	James Tyler.....	do	do	30 00
382	Mar. 7, 1878	County judge, Mono County, per B. B. Minor, attorney.	Township 4 north, range 27 east ..	do	25 00
402	Mar. 27, 1878	Goodall and Perkins ..	Township 15 north, range 17 west.	do	70 00
410	Mar. 30, 1878	A. J. Turogood.....	Township 2 south, range 5 west ..	San Bernardino	20 00
412	Mar. 30, 1878	Mr. Penell	do	do	10 00
411	Mar. 30, 1878	Rev. Mr. Wright.....	do	do	10 00
413	Mar. 30, 1878	Seneca La Rue.....	do	do	10 00
414	Mar. 30, 1878	Edwin Hart	do	do	20 00
415	Mar. 30, 1878	J. B. Simmons	do	do	10 00
416	Mar. 30, 1878	Hattie L. Sraver	do	do	20 00
417	Mar. 30, 1878	James H. Vive.....	do	do	10 00
418	Mar. 30, 1878	W. O. Price	do	do	10 00
419	Mar. 30, 1878	D. A. Coddington	do	do	10 00
420	Mar. 30, 1878	P. D. Cover	do	do	5 00
421	Mar. 30, 1878	Cover and McCay	do	do	5 00
422	Apr. 3, 1878	Horace Knight	Township 44 north, range 7 west..	Mount Diablo	38 00
423	Apr. 3, 1878	Marshall Short	do	do	37 00
431	Apr. 17, 1878	Newton Cain	Township 13 north, range 4 west..	do	34 00
432	Apr. 17, 1878	C. S. Powell	do	do	34 00
433	Apr. 17, 1878	William Phelps.....	do	do	46 00
434	Apr. 17, 1878	Jeremiah Powell.....	do	do	11 00
446	May 23, 1878	George H. Clark	Township 10 north, range 4 west..	do	75 00
463	June 12, 1878	Gerald E. Ward.....	Township 13 north, range 7 west..	do	62 00
464	June 13, 1878	J. H. Bostwick.....	Township 8 north, range 4 west..	do	22 00
476	June 27, 1878	A. W. Rose	Township 4 south, range 27 east ..	do	50 00
477	June 27, 1878	A. W. Rose	Township 3 south, range 27 east ..	do	50 00
481	June 28, 1878	A. P. Martin	Township 17 north, range 14 west	do	125 77
482	June 28, 1878	Peter M. Mallory	do	do	50 00
483	June 28, 1878	Chas. C. Chamberlain ..	do	do	50 00
		Total			4,121 86

O No. 2.—Statement of special individual deposits with the United States treasurer at San Francisco, Cal., during the fiscal year 1877-'78, for compensation of clerks and draughtsmen in the office of the United States surveyor general for California.

Number of certificate.	Date of deposit.	Name of depositor.	Name of mine.	County.	Amount of deposit.
1	July 3, 1877	W. R. Morgan.	Mount Pleasant placer mine	Plumas	\$40 00
2	July 5, 1877	Daniel Norcross	Emerald and Hercules mines	Alpine	40 00
13	July 18, 1877	Alex. Brizard	Horseshoe Bar placer mine	Humboldt	40 00
4	July 12, 1877	John Schroeder	Schroeder placer mine	Mariposa	40 00
16	July 21, 1877	G. Dussol	Derbec blue gravel mine	Nevada	40 00
22	July 26, 1877	William Muir	Keystone, Robert Bentley, Golden Gate, and El Dorado mines.	Placer	100 00
19	July 26, 1877	J. G. Riley	Keystone	Inyo	40 00
20	July 26, 1877	do	Minietta Bell mine	do	40 00
21	July 26, 1877	do	Mountain View mine	do	40 00
23	July 27, 1877	S. F. Gashwiler	Anchor mine	Sierra	40 00
24	July 30, 1877	R. Breese et al	Slavonia placer mine	Amador	20 00
26	July 31, 1877	J. Cannon	Emigrant quartz mine	Siskiyou	20 00
31	Aug. 3, 1877	James K. Byrne	Alta Hill, No. 3, gravel mine	Nevada	20 00
34	Aug. 8, 1877	Nash Deep Gravel Mining Company.	Martin & Co., Barstow & Co., and Nash & Co. mines.	Trinity	120 00
35	Aug. 8, 1877	do	Gibbons & Co., Lander, Mark & Co.'s mine.	do	80 00
42	Aug. 11, 1877	John McBeth	Monitor Consolidated mine and mill site.	Plumas	50 00
43	Aug. 11, 1877	A. D. McIntyre	Washington West Extension mine	do	25 00
44	Aug. 11, 1877	C. A. Garter	Afterthought mine	Shasta	40 00
45	Aug. 11, 1877	Erie Mining Company	Holland quartz mine and mill site	Nevada	40 00
46	Aug. 11, 1877	do	Oliver quartz mine and mill site	do	40 00
49	Aug. 13, 1877	Bunker Hill Gold Mining Company.	Bunker Hill Gold Mining Company's mine and mill site.	Plumas	80 00
55	Aug. 20, 1877	Robert Cryer et al	Peabody quartz ledge	Nevada	40 00
57	Aug. 22, 1877	R. B. Prince	Altaville quartz mine and mill site	Calaveras	10 00
58	Aug. 22, 1877	J. G. Irwin	Montezuma mine	Trinity	40 00
62	Aug. 24, 1877	John F. Boyd	John F. Boyd's mill site	Mono	40 00
63	Aug. 24, 1877	Standard Gold Mining Company.	Standard mill site	do	40 00
64	Aug. 25, 1877	C. B. Rendall	Rendall placer mine	Amador	20 00
73	Aug. 30, 1877	H. H. Brown	U. S. Grant placer mine	Placer	40 00
74	Aug. 30, 1877	Finley & Doty	Finley & Doty placer mine	Siskiyou	40 00
76	Sept. 1, 1877	O. F. Griffin	Ben Franklin quartz mine	Nevada	40 00
77	Sept. 3, 1877	Jesus Flores	Oak Flat oil mine	Ventura	40 00
79	Sept. 3, 1877	T. B. Ludlam	Druid placer mine	Placer	40 00
80	Sept. 6, 1877	Ruby Gold Gravel Mining Company.	Ruby Gold Gravel Mining Company.	Sierra	40 00
81	Sept. 6, 1877	A. Halsey	Duke of Wellington quartz mine and mill site.	Alpine	40 00
82	Sept. 6, 1877	E. Green	Lafayette quartz mine	do	40 00
83	Sept. 6, 1877	R. E. Brewster	Highland Mary quartz mine	do	40 00
84	Sept. 6, 1877	C. W. White	Union quartz mine	do	40 00
85	Sept. 8, 1877	J. H. Campbell	Campbell & Co. placer mine	Placer	40 00
86	Sept. 8, 1877	R. McCargar	Alexander placer mine	Humboldt	40 00
87	Sept. 10, 1877	H. H. Brown	Uncle Abe placer mine	Placer	40 00
88	Sept. 10, 1877	J. B. Osborne	Ingot, Syndicate, Bullion mine and mill site, and 1st north extension of Gunsight mine.	San Bernardino.	160 00
95	Sept. 12, 1877	G. W. Davis	Black Bear gold quartz mine	Trinity	40 00
93	Sept. 12, 1877	William Avala	Avala placer mine	Amador	40 00
94	Sept. 12, 1877	Confidence Mining Company.	Jessie and Edith quartz mine	Tuolumne	10 00
92	Sept. 12, 1877	Robert Gardner	Modoc mine	Inyo	40 00
108	Sept. 13, 1877	Ruby Gold Gravel Mining Company.	Guatemala placer mine	Sierra	40 00
109	Sept. 13, 1877	do	Extension placer mine	do	40 00
96	Sept. 13, 1877	P. M. Juergenson	Occidental mine	Placer	40 00
97	Sept. 13, 1877	George Hearst	Poclepopovich mine	Amador	40 00
98	Sept. 13, 1877	do	Loyal lode mine	do	40 00
99	Sept. 13, 1877	D. R. McKilliken	Bull Run copper mine	Nevada	40 00
100	Sept. 13, 1877	Spring Valley Mining and Irrigating Company.	Spring Valley Mining and Irrigating Company's mine.	Butte	40 00
101	Sept. 13, 1877	A. Halsey	Wolf Creek quartz mine	Plumas	40 00
102	Sept. 13, 1877	do	Evergreen gold mine	do	40 00
103	Sept. 13, 1877	J. McMurray	Five Cent Gulch placer mine	Trinity	20 00
106	Sept. 13, 1877	Lewis Chalmers	"J. L." mines and mill site	Alpine	150 00
110	Sept. 13, 1877	Peter Van Clief et al	America Hill quartz mine	Sierra	20 00
111	Sept. 13, 1877	A. Halsey	Columbia quartz mine	Plumas	40 00
112	Sept. 13, 1877	J. W. Hinkson	Maryland quartz mine	Amador	40 00
113	Sept. 13, 1877	Lewis Chalmer	Saint Helena silver and lead mine	Alpine	20 00
114	Sept. 13, 1877	A. B. Dibble	Allison Ranch Ford mine	Nevada	40 00
115	Sept. 13, 1877	A. Halsey	Kettle quartz mine	Plumas	40 00

O No. 2.—Statement of special individual deposits, &c.—Continued.

Number of certificate.	Date of deposit.	Name of depositor.	Name of mine.	County.	Amount of deposit.
116	Sept. 13, 1877	A. Halsey	Caledonia quartz mine	Plumas	40 00
117	Sept. 13, 1877	do	Phoenix quartz mine	do	40 00
118	Sept. 13, 1877	Herman Loeber	Doig Consolidated quartz mine	Placer	40 00
119	Sept. 13, 1877	do	Peachy Consolidated quartz mine and mill site.	do	40 00
120	Sept. 13, 1877	N. Heath	Union gold-bearing quartz mine	Calaveras	40 00
121	Sept. 13, 1877	J. Hall	Buchanan quartz mine and mill site.	Tuolumne	10 00
122	Sept. 13, 1877	Lewis Chalmers	Acacia mines	Alpine	60 00
123	Sept. 13, 1877	A. Halsey	Brilliant quartz mine	Plumas	40 00
124	Sept. 13, 1877	do	Jersey quartz mine	do	40 00
125	Sept. 13, 1877	do	Leitrim quartz mine	do	40 00
126	Sept. 13, 1877	do	Emerald quartz mine	do	40 00
127	Sept. 13, 1877	W. J. Rickman	South Honecut mine	Yuba & Butte	10 00
128	Sept. 13, 1877	G. G. Clough	Go Ahead Original and Extension placer mine.	Sierra and Plumas	20 00
129	Sept. 13, 1877	H. Loeber	Crater Hill quartz mine	Placer	40 00
130	Sept. 13, 1877	Gray & Haven	Mohawk placer mine	Plumas	40 00
131	Sept. 13, 1877	do	Eurek Peak placer mine	do	40 00
132	Sept. 13, 1877	Martin Ford et al	General Grant mine	Nevada	40 00
133	Sept. 13, 1877	E. F. Taylor	Kent placer mine	Amador	30 00
134	Sept. 14, 1877	J. B. Boyd	Helvetia mine and mill site	San Diego	60 00
135	Sept. 14, 1877	D. M. Hosmer	Pioneer Fluming Company's mine.	Placer	35 00
135	Sept. 15, 1877	D. D. Demorest	Demorest quartz mine	Calaveras	40 00
140	Sept. 15, 1877	A. Halsey	Gold Stripe quartz mine	Plumas	60 00
147	Sept. 15, 1877	do	Rush Creek placer mine	do	40 00
148	Sept. 15, 1877	do	Rodger's quartz mine	do	40 00
149	Sept. 15, 1877	do	Dixie placer mine	do	40 00
150	Sept. 15, 1877	do	Ruby quartz mine	do	40 00
151	Sept. 15, 1877	do	Smith & Martin mine	do	40 00
152	Sept. 15, 1877	Walter Drew	Robbins' Association mine	Los Angeles	40 00
154	Sept. 18, 1877	Minnietta Bell Mining Company.	Kentuck silver mine	Inyo	40 00
155	Sept. 18, 1877	James Marriott	Mariott placer mine	Nevada	40 00
167	Sept. 20, 1877	C. H. Wyman	Sacramento gravel mine	Sierra	10 00
168	Sept. 20, 1877	Lone Star and Eclipse Consolidated Mining Company.	Lone Star mine	Inyo	40 00
169	Sept. 20, 1877	do	Eclipse mine	do	40 00
170	Sept. 22, 1877	J. H. Cook	Mountain View mine	do	40 00
172	Sept. 24, 1877	O. H. McKee	Geyser sulphur mine	Sonoma	40 00
171	Sept. 24, 1877	James Hill	Golden Bull placer mine	Nevada	40 00
173	Sept. 25, 1877	A. H. Brooks	Doss quartz mine	Mariposa	10 00
179	Sept. 27, 1877	E. B. Smith & Co	Morrison Gulch placer mine	Trinity	5 00
187	Sept. 29, 1877	W. S. Lowden	Harmon placer mine	do	20 00
189	Oct. 1, 1877	E. H. Miller	Richelieu quartz mine	El Dorado	40 00
190	Oct. 3, 1877	Camp & Co	Washington Hill mine	Del Norte	40 00
195	Oct. 6, 1877	William S. Lowden	Copper Creek placer mine	Trinity	5 00
202	Oct. 11, 1877	R. S. Baker	Pico oil springs	Los Angeles	40 00
203	Oct. 13, 1877	George A. Nourse	Loyal lode mine	Amador	40 00
207	Oct. 15, 1877	McNeal & Bennett	McNeal placer mine	Siskiyou	5 00
210	Oct. 18, 1877	J. A. Stidger	Patterson mine	Nevada	40 00
215	Oct. 24, 1877	E. C. Erwin	Erwin mine	Yuba	40 00
216	Oct. 24, 1877	E. F. Taylor	Randall placer mine	Amador	10 00
218	Oct. 25, 1877	S. F. Gashwiler	Ancho mine and mill site	Nevada	10 00
217	Oct. 25, 1877	H. H. Brown	U. S. Grant mine	Placer	20 00
228	Oct. 26, 1877	J. S. Loyed	Shot Gun quartz mine	Calaveras	40 00
229	Oct. 26, 1877	North Gover Mining Company.	North Gover mine	Amador	40 00
231	Oct. 30, 1877	Joseph Cannon	Emigrant mine	Siskiyou	20 00
232	Oct. 30, 1877	John N. Blood	Laura mine	Plumas	40 00
233	Nov. 1, 1877	John Hussey	Hussey placer mine	Nevada	40 00
238	Nov. 3, 1877	J. H. Whitlock	Plow Boy quartz mine	Plumas	40 00
236	Nov. 3, 1877	Sunnyside Mining Co.	Sunnyside West Extension placer mine.	do	40 00
237	Nov. 3, 1877	do	Sunnyside East Extension placer mine.	do	40 00
239	Nov. 7, 1877	Henry Ohlmeir	Henry Ohlmeir placer mine	Mariposa	40 0
241	Nov. 8, 1877	Occidental	Plumas Eureka Mining Company.	Plumas	40 0
242	Nov. 9, 1877	J. C. Sullinger	Blue Peak mine	Napa	40 0
243	Nov. 9, 1877	A. B. Dibble	Ben Franklin mine	Nevada	20 0
245	Nov. 10, 1877	Dodson & Co.	Kickapoo mine	Butte	10 0
252	Nov. 12, 1877	A. Robinson	Fillbuster gravel mine	Nevada	40 0
253	Nov. 12, 1877	C. L. Street	Etna Quartz mine	Tuolumne	40 0
254	Nov. 12, 1877	G. W. Knox	Placerville placer mine	El Dorado	15 0
256	Nov. 14, 1877	James A. Stidger	Patterson placer mine	Nevada	60 0
258	Nov. 15, 1877	W. S. Young	Pioneer Camp mine	Siskiyou	40 0
259	Nov. 17, 1877	Henry Nuninger	German Ridge quartz mine	Calaveras	40 0

O No. 2.—Statement of special individual deposits, &c.—Continued.

Number of certificate.	Date of deposit.	Name of depositor.	Name of mine.	County.	Amount of deposit.
263	Nov. 19, 1877	B. S. Kellogg	Black Hawk gold mine	Mono	\$40 00
262	Nov. 19, 1877	W. S. Lowden	Black Bear gold mine	Trinity	20 00
264	Nov. 20, 1877	J. O. Welsh	Welsh placer mine	Siskiyou	40 00
265	Nov. 20, 1877	do	French Creek placer mine	do	50 00
270	Nov. 26, 1877	A. J. Ridger	Wilson and Lamarque quartz mine	Nevada	40 00
271	Nov. 26, 1877	Haas Brothers	Howland Flat placer mine	Del Norte	40 00
272	Nov. 26, 1877	W. H. Lent	Bechtel gold mine	Mono	40 00
275	Dec. 3, 1877	Antonio Silva	Slate Hill placer mine	Placer	40 00
276	Dec. 3, 1877	Henry and Patrick Grant.	Wisconsin Extension placer claim.	Sierra	45 00
277	Dec. 3, 1877	P. Grant <i>et al</i>	Wisconsin placer claims	do	45 00
278	Dec. 5, 1877	S. Riddle	Terrace borax mine	San Bernardino	40 00
279	Dec. 7, 1877	Charles Bassett	Capital mine	Amador	40 00
281	Dec. 10, 1877	Alexander Brizard	Horseshoe Bar placer mine	Humboldt	10 00
284	Dec. 10, 1877	Benjamin Flint	California quartz mine	Amador	40 00
291	Dec. 12, 1877	William DeWitt	DeWitt mines	do	100 00
292	Dec. 12, 1877	Mountain Brow Gold and Silver Mining Co.	Canadian mine	San Diego	40 00
295	Dec. 14, 1877	Berry Mitchell	W. J. Lawrence placer mine	Placer	40 00
296	Dec. 15, 1877	Samuel L. Stanley	Excelsior mine and mill site	Shasta	40 00
297	Dec. 15, 1877	John W. Popejoy	Popejoy quartz mine	do	40 00
298	Dec. 15, 1877	E. F. Crocker	Crocker quartz mine and mill site	do	40 00
299	Dec. 15, 1877	T. M. Popejoy	Bully Hill quartz mine	do	40 00
300	Dec. 15, 1877	Extra Mining Co.	Peruvian quartz mine	do	40 00
301	Dec. 15, 1877	do	Empire quartz mine	do	40 00
302	Dec. 17, 1877	J. Perrellack	Cabin Flat mine	Nevada	40 00
304	Dec. 18, 1877	Thomas A. Brown	Dutch Bar hydraulic mine	Plumas	20 00
305	Dec. 19, 1877	Moore's Flat Gravel Company.	Moore's Flat gravel mine	Nevada	40 00
306	Dec. 19, 1877	Bulwar Mining Co.	Ralston No. 1 mine	Mono	40 00
307	Dec. 19, 1877	do	Ralston No. 2 mine	do	40 00
308	Dec. 19, 1877	Standard Gold Mining Company.	West Bullion mine	do	40 00
309	Dec. 24, 1877	J. M. Livingston	Empire mine and mill site	do	40 00
310	Dec. 24, 1877	George W. Beaver	Lady Alice quartz mine	do	40 00
311	Dec. 24, 1877	Gray & Haren	Crescent quartz mine	do	40 00
313	Dec. 26, 1877	C. V. Gottschalk	Charanne mine and mill site	Calaveras	20 00
317	Dec. 31, 1877	Johnson & Cross	Hill's sulphuret works	Nevada	10 00
318	Dec. 31, 1877	Silas Pearson	Eagle mine	Los Angeles	40 00
319	Dec. 31, 1877	do	Mabel mine and mill site	do	40 00
326	Jan. 7, 1878	W. R. Morgan	Mount Pleasant mine	Sierra	40 00
327	Jan. 9, 1878	Thomas Henning	Ventura mine	Inyo	40 00
331	Jan. 17, 1878	Bodie Gold Mining Co.	Bodie gold mine	Mono	40 00
332	Jan. 18, 1878	R. Gardner	Keyes, Confidence, Hearst, and Lookout mines.	Inyo	160 00
333	Jan. 19, 1878	R. McCrager	Alexander mine	Humboldt	15 00
335	Jan. 21, 1878	W. Irwin	Bodia placer mine	Mono	40 00
336	Jan. 24, 1878	David Hayes	Rancheria placer mine	do	40 00
337	Jan. 24, 1878	John N. Blood	Crown Point mine	Plumas	40 00
338	Jan. 24, 1878	do	Indian Valley mine	do	40 00
339	Jan. 24, 1878	do	Summit quartz mine	do	40 00
340	Jan. 24, 1878	William Willis	Homestake and Stonewall mines	Mono	80 00
341	Jan. 25, 1878	Excelsior Water and Mining Company.	Blue gravel mine	Yuba	40 00
342	Jan. 25, 1878	do	Roses Bar Paclotus and Bath mine, now called Excelsior.	do	40 00
343	Jan. 25, 1878	Enterprise Mining Company.	Enterprise mine	do	40 00
344	Jan. 28, 1878	William De Witt	Haley quartz mine	Amador	40 00
345	Jan. 29, 1878	Live Oak Mining Company.	Live Oak mine	Nevada	40 00
347	Jan. 29, 1878	S. B. Caswell	Wiley petroleum	Los Angeles	40 00
348	Jan. 31, 1878	G. W. Kling	Eclipse quartz mine	Amador	40 00
349	Jan. 31, 1878	A. G. Summers	Sumner's asbestos mine	Calaveras	40 00
350	Jan. 31, 1878	J. A. Byers	Byers asbestos mine	do	40 00
346	Jan. 29, 1878	E. W. Morse	Oriflame mine and mill site	San Diego	80 00
353	Feb. 7, 1878	W. G. Kirkham	Kirkham placer mine	Humboldt	10 00
354	Feb. 8, 1878	Home Gold and Silver Mining Company.	Home quartz mine	Nevada	40 00
355	Feb. 11, 1878	Haggin, Hearst & Reese.	San Francisco gold mines and slate range mill site, New York silver, Alta silver, Lone View gold mine.	Kern	60 00
357	Feb. 11, 1878	A. G. Black	Compromise mine	Mariposa	40 00
369	Feb. 12, 1878	M. Byrne, jr.	Planet placer mine	Nevada	40 00
371	Feb. 15, 1878	A. Tain	Tain quartz mine	do	40 00
376	Feb. 25, 1878	S. L. Stanley	Excelsior mine and mill site	Shasta	20 00
379	Feb. 28, 1878	J. Berolshine	Spaulding gold and silver mine	Mono	40 00

O No. 2.—Statement of special individual deposits, &c.—Continued.

Number of certificate.	Date of deposit.	Name of depositor.	Name of mine.	County.	Amount of deposit.
380	Mar. 1, 1878	H. G. Blasdel.....	Red Cloud, Packard, and Morton mines.	Mono.....	\$60 00
381	Mar. 2, 1878	W. P. Morgan.....	Mount Pleasant mine.....	Sierra.....	20 00
383	Mar. 11, 1878	C. L. Street.....	Chaparrel quartz mine.....	Tuolumne.....	40 00
384	Mar. 11, 1878	H. Nuninger.....	German Ridge quartz mine and mill site.	Calaveras.....	20 00
386	Mar. 12, 1878	P. B. Cornwall.....	Peerless quartz mine.....	Amador.....	40 00
387	Mar. 13, 1878	W. J. Lorenz.....	Lorenz placer mine.....	Placer.....	40 00
388	Mar. 20, 1878	B. G. Parker.....	Young & Harmon mine.....	El Dorado.....	40 00
389	Mar. 20, 1878	Andrew Gerbach.....	Buchanan quartz mine.....	Tuolumne.....	40 00
390	Mar. 21, 1878	J. B. Haggin.....	Marsh & Kennedy mill site.....	Kern.....	60 00
392	Mar. 23, 1878	John Leddy.....	San Francisco mine.....	Placer.....	30 00
393	Mar. 23, 1878	do.....	Enterprise (now Excelsior) mine.....	do.....	30 00
394	Mar. 23, 1878	James P. Pierce.....	Excelsior mine.....	Yuba.....	20 00
395	Mar. 23, 1878	do.....	Blue gravel mine.....	do.....	20 00
424	Apr. 4, 1878	G. G. Allen.....	Hartford placer mine.....	Nevada.....	40 00
430	Apr. 16, 1878	Henry Williams.....	Gillis & Carrington quartz mine.....	Calaveras.....	40 00
435	Apr. 29, 1878	H. N. Jones.....	Planet placer mine.....	Nevada.....	20 00
437	May 1, 1878	C. V. Gottschalk.....	Charanne mine.....	Calaveras.....	60 00
440	May 13, 1878	Camp & Co.....	Washington Hill mine.....	Del Norte.....	20 00
441	May 17, 1878	J. B. Haggin.....	Lena mine.....	Kern.....	40 00
442	May 17, 1878	do.....	Hidden Treasure mine.....	do.....	40 00
444	May 22, 1878	B. G. Parker.....	Young & Harmon.....	El Dorado.....	20 00
449	June 3, 1878	R. G. Pierce.....	Sardine mine.....	do.....	40 00
450	June 5, 1878	George S. Dodge.....	Head Light mine.....	Mono.....	40 00
451	June 5, 1878	do.....	Mammoth mine.....	do.....	40 00
452	June 5, 1878	Edward Clark.....	Mammoth No. 2 mine.....	do.....	40 00
461	June 11, 1878	W. B. Reeves.....	Ambrose mine.....	Del Norte.....	5 00
462	June 11, 1878	Henry Williams.....	Gillis & Carrington mine and mill site.	Tuolumne.....	20 00
465	June 18, 1878	John Hussey.....	Hussey placer mine.....	Nevada.....	40 00
467	June 18, 1878	J. Berolzhime.....	Bryant mine.....	Mono.....	40 00
468	June 20, 1878	W. C. Hendricks.....	Hendricks & Co. placer mine.....	Butte.....	5 00
469	June 20, 1878	F. Limpeniel.....	German quartz mine.....	El Dorado.....	40 00
470	June 20, 1878	Waver Sebastian.....	Brown Bear gold quartz mine.....	Trinity.....	40 00
471	June 20, 1878	do.....	Barted gold quartz mine.....	do.....	40 00
472	June 20, 1878	John J. Flora.....	Buckeye Hill mine.....	El Dorado.....	40 00
473	June 26, 1878	T. J. Williams.....	Relief lode mine.....	Kern.....	30 00
478	June 27, 1878	J. C. Williams.....	Henry Clay mine.....	Amador.....	40 00
		Total.....			9,055 00

P.—Statement of account of special deposits for office work in the office of the United States surveyor general for California during the fiscal year 1878.

1877.			1878.		
Sept. 1	To amount of deposit by John W. McCulloch (withdrawn) .	\$200 00	June 30	By amount of deposit for survey of public lands, as per Exhibit O No. 1	\$4,121 86
Sept. 1	To amount of deposit by C. B. Gregory (withdrawn)	200 00		By amount of deposit for survey of mining claims, as per Exhibit O No. 2 . . .	9,055 00
Oct. 25	To amount of deposit by Green & Brewster (withdrawn)	40 00		By amount to balance	1,758 38
Nov. 19	To amount of deposit by A. Robinson (withdrawn)	40 00			
Nov. 24	To amount of deposit by Sidney Booth (withdrawn)	41 28			
Nov. 27	To amount of deposit by Henry Powell (withdrawn)	40 00			
Dec. 3	To amount of deposit by A. J. Ridge (withdrawn)	40 00			
Dec. 13	To amount of deposit by J. O. Welsh (2 certificates) (withdrawn)	90 00			
1878.					
Jan. 19	To amount of deposit by Dan. C. Ray (withdrawn)	160 00			
Feb. 23	To amount of deposit by William Lambert (withdrawn)	86 00			
Jan. 15	To amount of deposit by Edward Clark (withdrawn)	40 00			
1877.					
Sept. 30	To amount paid clerks and draughtsmen, 1st quarter . . .	3,717 38			
Dec. 31	To amount paid clerks and draughtsmen, 2d quarter . . .	3,182 93			
1878.					
Mar. 31	To amount paid clerks and draughtsmen, 3d quarter . . .	3,978 87			
June 30	To amount paid clerks and draughtsmen, 4th quarter . . .	3,078 78			
		14,935 24			14,935 24

PP.—*Statement of accounts paid from the appropriation for the survey of private land claims in California during the fiscal year ending June 30, 1878.*

DR.

CR.

1877.			1877.		
Oct. 11	To account of Frederick MacCrellich & Co. for advertising survey of Isla de la Yegua or Mare Island . . .	\$7 50	July 1	By appropriation for the survey of private land claims in California during the fiscal year ending June 30, 1878.....	\$6,000 00
Nov. 8	To account of Vallejo Chronicle Publishing Company for advertising survey of Isla de la Yegua or Mare Island	7 50			
Oct. 20	To account of Frederick MacCrellich & Co. for advertising survey of Rancho La Purisima (mission), José Ramon Malo, confirmee	7 50			
Dec. 14	To account of L. S. B. Sawyer for certified copy of decree of United States district court in case of Joaquin Moraga	2 70			
Dec. 22	To account of Frederick MacCrellich & Co. for advertising survey of Rancho Paso de Bartolo, Pio Pico confirmee	7 50			
1878.					
Jan. 19	To account of Frederick MacCrellich & Co. for advertising survey of Rancho Paso de Bartolo, Pio Pico confirmee	7 50			
Feb. 15	To account of Los Angeles Daily and Weekly Star for advertising survey of Rancho Paso de Bartolo, Pio Pico confirmee	4 00			
Mar. 15	To account of Lompoc Record for advertising survey of Rancho Mission la Purisima, José Ramon Malo confirmee	12 00			
July 20	To account of William Minto for surveying Rancho Jumba	866 66			
Apr. 11	To transferred to credit of appropriation for survey of public lands	4,000 00			
	To amount to balance	1,077 14			
		6,000 00			6,000 00

Q.—*Estimate for the surveying service in the district of California, for the fiscal year ending June 30, 1880.*

For surveying exteriors of meridians, standard parallels, township exteriors, and subdivision lines	\$100,000 00
For surveying timber lands	50,000 00
For surveying private land claims	3,000 00
For one large iron fire-proof safe for archives room, to contain the original Spanish and Mexican grants	1,800 00
For compensation of clerks and draughtsmen employed on public surveys	15,000 00
For wages of messenger, stationery, fuel, lights, and incidental expenses	3,000 00
For bringing up arrears of office work, public surveys, draughting, &c.. . . .	10,000 00
For bringing up arrears of office work on private land claims	2,000 00
For salary of surveyor general	3,000 00
	187,800 00

THEO. WAGNER,
United States Surveyor General for California.

REPORT OF THE COMMISSIONER OF INDIAN AFFAIRS.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
Washington, November 1, 1878.

SIR: I have the honor to submit herewith the annual report of the Indian Bureau.

CHANGES AND IMPROVEMENTS.

Many changes have been made since my last report in the methods and management of both the office and agency business. Rules previously established have been enforced, and accountability on the part of employes and of those who have had business with the office has been insisted upon, and the affairs of the office generally have been put upon a strictly business basis. The property and cash accounts of agents have been closely scrutinized and the service purified of such agents and employes as have been found unfaithful to their trusts or inefficient in their management. Claims have been critically examined, and as a result large sums of money have been saved to the government. Contractors have been held to the fulfillment of their contracts, and attempts to put upon the government inferior goods have been met by deductions which have fully protected its interests and have served to deter others from making similar experiments. Some dishonest contractors and employes have been and are now being prosecuted and convicted. Many attempted frauds have been detected and thwarted, and some which had been successful in previous years have been discovered, and it is hoped that the perpetrators may yet be brought to justice.

There have been thirty-five new appointments of agents, and it is believed that most of the changes will prove of great benefit to the service.

Specific and detailed instructions as to the manner of inspecting, weighing, and issuing cattle, flour, and other supplies have been given, also as to the disposition of funds and the keeping and rendering of accounts at the various agencies. The attention of agents has been called to the necessity of bringing their Indians to self-support at an early day, and education in the fields has been made a prominent feature in the teaching of the school children. It is proposed to supply a few head of cattle as the nucleus of a cattle herd for each Indian school, and to encourage cattle-raising wherever practicable. As, however, but few Indians can find employment in caring for large herds of cattle, husbandry must be their main reliance. More land has been cultivated this year than last, and preparations have been made for raising very much larger crops next year.

Many changes have been made in the traderships at the agencies.

The new system of buying and selling for cash only, and of requiring traders to post price-lists of their goods in convenient places, and of having but one price, which must be the same for Indians and whites, works well.

Two new inspectors and two special agents have been appointed, and the inspections of Indian agencies have been careful and complete. Good results must continue to follow the more active and thorough supervision which is being carried out.

The issuing of sugar, coffee, and tobacco, except in return for labor, has been forbidden in most cases.

The adoption of a new form of beef-contract not only secures a better quality of beef cattle for the Indians, but it provides for an equivalent deduction from contract-prices for any inferior cattle which an agent may be compelled to receive rather than permit his Indians to starve.

The system of permitting agents in all cases to choose agency employés from among their relatives and friends having proved disastrous to agents and disadvantageous to the service, has been changed.

CONSOLIDATION.

During the last session of Congress, at the verbal request of the House Committee on Indian Affairs, a bill was drawn in this office and sent to the committee, providing for the removal and consolidation of certain Indians in the States of Oregon, Colorado, Iowa, Kansas, Nebraska, Wisconsin, and Minnesota, and the Territories of Washington and Dakota.

The objects sought to be attained by the bill were as follows:

First. The reduction of the number of agencies, and consequently a large annual reduction of the expense attending the civilization of the Indians and the management of their affairs.

Second. The consolidation of the Indians upon reservations where they might be best protected in their personal and property rights.

Third. The sale of the lands vacated by the consolidation, and the use of a portion of the funds arising therefrom in the removal and settlement of the Indians, now residing on the reservations to be vacated, on the reservations where the consolidation is to be effected, the balance of the money to be funded for their use, the interest thereon to be expended in lieu of direct appropriations for the benefit of all the Indians on the reservation as created by the bill.

Without attempting to particularize, it may be said that the various tribes and bands of Indians embraced in the bill now occupy thirty-six reservations, containing 21,922,507 acres of land, under charge of twenty agents and the necessary attendant corps of teachers and other employés. Upon the reduction proposed in the bill they will occupy nine reservations, containing 4,239,052 acres, under the charge of nine agents, all of whom are now provided for by law. A reduction of twenty-five reservations and eleven agencies will thus be effected. There will be restored to the public domain 17,642,455 acres of land, and an annual saving in agency expenses to the amount of \$120,000 will be effected, after making a liberal allowance for an increase of teachers, farmers, &c., at the several consolidated agencies.

Since the presentation of the bill to the committee a more particular investigation of the subject has convinced me that further consolidations of like character are not only possible, but expedient and advisable. There is a vast area of land in the Indian Territory not yet occupied. Into this should, and may, be gathered the major portion of the

Indians of New Mexico, Colorado, and Arizona. The Klamath Indians of Oregon can, with material advantage to themselves and the government, be removed to Yakama Reservation, in Washington Territory, to which reservation the Bannocks and Malheur Indians will also be immediately sent. This policy should also be pursued with the Indians of Western Dakota, Montana, Idaho, and other sections; the paramount object being to locate them on good agricultural lands to which permanent title can be given, and to sustain and aid them thereon until they become self-supporting.

Among the most radical defects of the policy formerly pursued with the Indians has been the frequent changes in their location which have been made, and the fact that the method of distributing the annuities which they have received under various treaties has, in general, encouraged them in idleness and dependence on the government, whereas they should have been used in locating them in permanent homes and in educating them in agricultural and other civilized pursuits. But a small proportion of the lands now occupied by the Indians is utilized for any purpose. They are, in the main, dependent upon the charity of Congress for the little aid that is given to assist them in agricultural pursuits, and in many cases the meager amount given, however honestly expended, is wasted on account of its insufficiency to accomplish the desired ends. In my judgment, permanent homes, sufficient aid to enable them to build houses, cultivate the soil, and to subsist until they have harvested their first crops, will wean them entirely from their old methods of life, and in the course of a few years enable them to become entirely self-supporting. A practical application of the merely common-sense methods named above have, within a comparatively brief period, enabled the Sisseton Sioux of Dakota, the Chippewas of White Earth, Minnesota, and the Santee Sioux of Nebraska, not only to produce sufficient grain for their own use, but a large surplus for sale, and the Yakama agency in Washington Territory has surplus beef for sale. A new era has dawned for them; they no longer desire to follow the chase; they have tasted the benefits of civilization, and have, consequently, ceased to lean entirely upon the government for support; they are willing and earnest laborers, eager to be taught, and ready to adopt the habits, customs, methods, and advantages of civilization.

Among the more forcible arguments which can be presented in connection with this subject is the fact that the expenses attending the removal and consolidation of the Indians as herein proposed will be more than met from the sale of lands vacated. Under the provisions of the bill as presented at the late session 17,642,000 acres of land will be vacated. Should these lands be opened to settlement under the pre-emption or homestead laws, but a very small revenue, if any, would be derived from their sale, as they would be largely absorbed under the last-named act. The bill presented contemplates the appraisement and sale of the lands vacated, except in the case of four of the tribes, to whom a sum in gross is to be paid, and the money arising therefrom, as before stated, used in effecting the removal, building houses, purchasing cattle, breaking lands, and teaching them the rudiments of agriculture; the balance to be funded, the interest to be used as long as necessary in furthering the objects named above.

Much of the land now owned by these Indians is valuable only for its timber, and may be sold at an appraised value for an amount far in excess of the price fixed by law, and yet leave a large margin of profit to the purchaser into whose hands the lands will fall. The same conditions exist as to the arable lands now embraced in the reservations to

be vacated. Settlements have sprung up all around them, and the value of the lands has been largely appreciated thereby. I can see no reason why the government should not avail itself of these facts, and in effecting the consolidation of the Indians and the opening of the lands for settlement, sell the same for an amount sufficient to support the Indians in their new locations, without any actual drain on the Treasury in the future. The lands belong to the Indians, and they are clearly entitled to receive the full value of the same when sold. The government is desirous of reducing the cost of the Indian service to the lowest possible limit, consistent with the best interests of the Indians. This can be done by the sale of the lands, the funding of the surplus after the removal and settlement of the Indians, and the application of the accruing interest to the payment of the current expenses of the respective agencies, and that without affecting in the least degree the interests of citizens.

By following these views to a legitimate conclusion, the seventy-four agencies now existing by law can, with material benefit to the Indians, be reduced to a very limited number. An opportunity will thus be given the Indians to earn a sufficient support for themselves. Schools can be opened and maintained, and their attention will be drawn to new and interesting pursuits. The history of the few tribes to whom permanent homes have been given, with guaranteed title to the same, and a reasonable degree of aid and instruction, shows clearly, as before intimated, that as a race, when honorably and intelligently dealt with, Indians yield readily to the influences of a civilizing policy. The adoption by the department, under authority of law, of the policy of consolidation herein proposed, with a permanent title to the land, in which the Indians will be fully protected against the encroachments of the whites and the changes incident to new legislation, both of which have been prolific causes of Indian wars, will, in my judgment, in a comparatively short time, remove all cause for discontent on the part of the Indians and insure future pleasant relations with all the tribes.

With a view to pressing this important question before Congress at its next session, a new bill will be prepared by this office for presentation at an early day, giving wider scope and more permanent direction to the matter.

A PERMANENT LAND TITLE.

The question of greatest importance to the present and future welfare of the Indians is that of a uniform and perfect title to their lands. The constant removals incident to the former land policy of the Indian service have been freighted with evil consequences to the Indians. Even when placed upon reservations they have come to consider, notwithstanding the most solemn guarantees from the United States that the same should be kept sacred and remain theirs forever, that the title to their land is without permanency, and that they are subject to be removed whenever the pressure of white settlers upon them may create a demand for their lands either before Congress or the department. So fixed has this opinion become among the more civilized tribes, that in the main they decline to make any improvements upon their lands, even after an allotment in severalty has been made, until they have received their patents for the same.

But after the issue of patents, the difficulties surrounding them do not cease. A few, it is true, hold to their land and make rapid and encouraging progress in agricultural pursuits. The major portion of them, however, yielding to the pressure surrounding them, fall victims

to the greed of unscrupulous white men, and, one by one, part with or are defrauded of their lands. Every means that human ingenuity can devise, legal or illegal, has been resorted to for the purpose of obtaining possession of Indian lands.

The question which now presents itself is, shall tenure of title to the land in the various reservations remain as now, or shall a new system be adopted, which shall protect them against all interference with their lands by whatever authority.

Before proceeding to consider the best means to be adopted for the protection of the Indians in this regard, it is perhaps best to show the method heretofore pursued, with a brief statement of the results which have followed. The older and more common Indian title has been title by occupancy. This title has from time to time been extinguished by treaty stipulation. Of the lands thus acquired, there have been at various times certain tracts set apart for the several tribes by treaties ratified by the Senate, in which possession in common has been guaranteed to them forever. These reservations have in general been established far beyond the limits of white settlement. As the settlements incident to the rapid growth of the country have approached the boundaries of the reservations, the pressure has in many cases become so great that the Indians have been compelled, as a matter of self-protection, to ask for a new reservation, or their lands have been seized by the settlers, and they have been ousted from possession of the same. War in defense of their rights has generally resulted in such cases, which it has been the duty of the government to suppress. Many of our Indian wars have arisen either from the bad faith of the government in the observance of treaties with regard to Indian land, or from the seizure of the same by its citizens, in violation of expressed treaty stipulations granting the reservation to the Indians in perpetuity.

In some cases title in severalty in fee simple has been given to the individual members of the tribes for a certain quantity of the lands embraced in the reservation. Experience has shown that even the most advanced and civilized of our Indians are not capable of defending their lands when title in fee is once vested in them. The reservations in such cases are at once infested by a class of land-sharks who do not hesitate to resort to any measure, however iniquitous, to defraud the Indians of their lands. Whiskey is given them, and while they are under its influence they are made to sign deeds of conveyance, without consideration. They are often induced to sign what they are informed is a contract of sale for a few trees growing on their land, with a receipt for the consideration paid; or some party goes to them claiming to be an agent of the State or county, distributing funds to the poor. This party will pay the Indian five or ten dollars, and procure his signature to a pretended receipt for the same, when in reality the paper signed is a warranty deed, which is recorded, and generally the land is sold to a third and innocent party before the Indian discovers the fraud which has been practiced upon him.

In other cases the Indians complain, and, as it appears, not without cause, that they are subjected to unequal and unjust taxation which they are unable to meet, and are thus divested of the title to their lands.

Again they are induced to mortgage their lands for small sums which they are told will enable them to make money and improve their farms as their white neighbors have done. These mortgages are made payable generally at a time when the Indians are likely to have no money; an attorney fee of seventy-five or one hundred dollars is inserted. At maturity if the mortgage is not satisfied, which generally happens, fore-

closure is had, the land is sold, and the Indian is left homeless and hopeless, a pauper for the community to support.

Out of 1,735 Indians to whom patents were issued about the year 1871 on the Chippewa Reservation of Isabella County, Michigan, fully five-sixths have sold, or in some manner have been cheated out of, their lands. A few of them have sold at something near a fair consideration. Many have been defrauded of their lands by some of the measures above named or other equally nefarious practices, while others, in large numbers, sold their lands before the selections were approved or patents issued, receiving only a nominal price (about twenty-five cents per acre) for lands worth from \$5 to \$25 per acre. One of these selections was purchased for \$15, and the party who purchased the same has been offered \$4,000 for it but refused to sell.

All the circumstances connected with these sales point directly to collusion between the agent and the parties purchasing in the execution of these unmitigated frauds.

So well have the Indians of Isabella County, Michigan, become convinced of their entire inability to protect their lands, that at a recent council with them, held by a special agent of this office, at which a number of allotments were made, they unanimously requested that the patents for the lands allotted be issued to them without the power of alienation. These Indians are citizens and voters, and a few of them hold office in the towns where they reside. The investigations heretofore made show that the most intelligent of them have been victims of some of the practices above enumerated.

Under numbers of the treaties with the different tribes, patents have issued restricting the right of sale, except upon the approval of the Secretary of the Interior and the President. In cases of this character, where the guards against fraud would appear to be sufficient to insure the most perfect good faith and to prevent a sale by a party not entirely competent to transact his own business, the records of this office show that frauds have been committed. Instances of this character will be found in the history of the Shawnee, Miami, Sac and Fox, Pottawatomie and other Indians of Kansas, to whom patents in fee or otherwise were issued, and who have been despoiled of their lands, and to whom the government has since been compelled to afford an asylum in the Indian Territory.

It has been strongly urged that citizenship should be extended to all of the so-called civilized Indians. Such citizenship, if conferred indiscriminately, would, in my judgment, while the Indians are in their present transition state, be of incalculable damage to them. We should move slowly in the process of making Indians citizens, until they are prepared to assume intelligently the duties and obligations of citizens. The experience of the past has shown us that to make them citizens hastily is to make them paupers. Indians of full age are infants in law; and in fact they need a long tutelage before launching them into the world to manage their own affairs. Entire civilization, with education, a knowledge of the English language, and experience in business forms and matters, especially such as relate to the conveyance of lands, should precede citizenship if it is the intention of the government to save the Indians from pauperism and extermination.

The progress made in Indian civilization, the history of each tribe, the reports of this office, and of each and every officer who has intelligently investigated this question, all go to show the necessity for a permanent home for the Indians with an indefeasible title to the same. If this desired reformation in the management of their affairs can be

effected, I am assured that the progress of the Indians will be rapid and permanent, and that all cause for the maintenance of an armed force to restrain the Indians and secure peace in the Indian country will be at an end. They will then fall readily within the jurisdiction of the laws, and their future status as a peaceable and law-abiding people will be fixed.

After a careful consideration of this important question I have come to the conclusion that as fast as the Indians are consolidated upon reservations, as recommended in another part of this report, or in cases where they are now located on good agricultural lands, where it is deemed best that they should remain, the Secretary of the Interior should be authorized by a law applicable to all the tribes to allot the lands in such reservations among the Indians belonging thereon, in tracts not exceeding 160 acres to each head of a family, or 80 acres to each single person over 21 years of age, and to issue patents therefor without the right to sell, mortgage, lease, or otherwise alienate the same for the term of twenty-five years from the date of the patent, after which time the same may be alienated under such rules and regulations as the Secretary of the Interior, for the time being, may see fit to impose; said lands so patented to be exempt from taxation and from levy or sale under process of any court for a like term of years; all property acquired by the Indians, aside from the lands received from the government as above suggested, and the annuity or other tribal funds derived under any treaty with the government, to be subject in all respects to the laws of the State or Territory in which the party may reside. This may be accomplished by retaining the reservation intact for all purposes connected with the title to these lands.

Such an act would, I am satisfied, afford to the Indians the degree of protection necessary to their civilization and lead them gradually to a full comprehension of the rights, privileges, duties, and responsibilities of American citizenship, which I shall hope to see accorded to them whenever in the future they may become fully competent. A bill embracing the material points above indicated will be prepared for submission at the coming session of Congress.

INDIAN AUXILIARIES.

The scattering of seventy-four Indian agencies over a wide extent of territory has apparently necessitated the establishment of a greater number of detached military posts. The dividing of the Army into so many small detachments tends to deprive it of the strength needed for the suppression of a sudden outbreak. For the past year it has been almost impossible to obtain even an escort of cavalry or infantry, inasmuch as the number of men at each military post has been sufficient only to furnish it a respectable garrison. The history of the past three years has proven conclusively that this attenuation of the Army renders it impossible to administer even a homeopathic dose of coercion until after a lapse of considerable time. This weakness emboldens the savages, so that a mere handful, like the 87 warriors, with their 200 women and children, under Dull Knife, can cut through a military department and spread terror and slaughter for a month with impunity.

The consolidation of Indian tribes upon fewer reservations, as recommended elsewhere, would enable the Army to concentrate and become more effective. There is, however, another remedy for the evil indicated, which, in my judgment, can be and should be quickly adopted to save the loss of life and property consequent on Indian outbreaks, and the great expense now entailed on the government by Indian wars. An auxiliary force of Indian cavalry should be organized, enlisted from the

young men of the most warlike tribes, and placed under the command of Army officers of experience. Such a force should be held ready for effective service at a moment's warning. The mere fact of its existence would serve to check the tendency to outbreaks, and by enlisting the young and warlike from the various tribes, the element of strife that is now chafing for the excitement of the war-path would find legitimate occupation that would tend to repress the natural disposition for indiscriminate war and bloodshed.

Another consideration which calls for the organization of such a force is the fact that our Indians are among the best, perhaps are the very best, horsemen in the world; and it is no disparagement to white soldiers, whose bravery is deservedly held in high esteem, to admit that Indians are their superiors in following the trail of a foe. They will not stand up in the open field and fight like our white soldiers, but mounted and set upon a trail they will follow it with a persistent speed that no white man can equal.

Such an auxiliary force, not exceeding 3,000 men, could be so placed as to be brought rapidly into action, in case of any threatened outbreak. It should be held in large bodies, to be effective, and not divided up infinitesimally, as would be the case with ordinary army scouts; and it would put an effectual stop to raids running a course of from 700 to 1,800 miles. Of its feasibility there need be no question, for there can be no truer friend or braver man than the American Indian of the better type, and his loyalty to the government, when once enlisted in its service, is beyond any reasonable doubt. If the English Government can trust the sepoys of India, we can place full confidence in our Indian allies.

I would urge the speedy organization and equipment of this auxiliary force, to which the objections raised by many to the increase of the Army would not apply, because it could be used only to suppress, prevent, or shorten the duration of any Indian disturbance. Added to the Army, it would entail very little expense, and detract nothing from the productive resources of the country. Moreover, the utilizing of a portion of our population which we are now obliged to feed, and often to fight, would be an act of public economy. Under proper officers, this corps might even become a valuable training school, in which, when not in active service, the education of those enlisted could be greatly advanced. In the light of past experience, this would seem to be the only weapon with which to terminate this perpetual warfare without largely increasing the Army, and thereby drawing from the effective industry of the country.

It should be distinctly understood that the Indian auxiliaries would be entirely under control of the War Department, and that such an organization should not subtract one man from the number of enlisted men in the Army as at present provided by law. In view of the necessity of protecting white men from hostile Indians, the Army is insufficient in numbers. An addition of three thousand Indian auxiliaries would give it only the support it greatly needs, and enable it to cope successfully with the enemies of our peace.

THE OUTBREAK OF THE BANNOCKS.

The delay in carrying out the provisions of the treaty of July 3, 1868, for lack of any sufficient appropriation of money, and the small quantity of supplies furnished to the Bannocks by the government, have forced these Indians to continue their nomadic life to the present time.

It is not possible for them to settle upon the reservation which has been set apart for them until such time as sufficient funds are appro-

priated by Congress to subsist them while doing the first year's farm work. If they stop hunting and commence farming they must be fed until their crops are gathered. No appropriation has ever been made for them sufficient for this purpose. Each successive year they have been less successful in finding game when on the hunt, and during the war with the Nez Percés they were forced to remain upon their reservation and accept the scant allowance of food which the government had furnished for them.

Excited by what they heard of the war, irritated by what they esteemed to be bad faith in the issuance to them of scant rations, annoyed by the encroachments of the whites upon their reservation, and cherishing a chronic dislike for the Shoshones, with whom they were associated at Fort Hall Agency (the friendly and peaceable character of the latter rather aggravating their hostility to them), they became more and more restless until, during the summer of 1877, a Bannock Indian under the influence of whiskey and war-paint started out from the agency, armed with Winchester rifle and revolver, and shot and seriously wounded two unoffending teamsters who were passing the agency. On the 23d of November the perpetrator of this deed was arrested and handed over to the civil authorities through the instrumentality of the agent, without resistance or opposition. On the same day, as an outcome of the excitement and bitter feeling resulting from this arrest, another Bannock, a friend of the prisoner, shot and killed the agency butcher, Alexander Rhodan.

Troops were immediately called for. On the 20th of December, Colonel Smith, of the Fourteenth Infantry, arrived at the agency, and on the 9th of January, 1878, the murderer of Rhodan was arrested by the military at a point some sixty miles distant from the agency; subsequently he was tried and hanged.

The excitement and threatening demonstrations on the part of the Bannocks consequent upon this arrest were such that Colonel Smith, reinforced by cavalry, on the 16th of January surrounded two Bannock villages at the agency and captured 53 warriors with 32 guns and about 300 ponies. The prisoners, except the father and two brothers of the murderer, were released, after admonition by Colonel Smith, and were suffered to return to their people, and in April the captured ponies, being of but little value, were returned to them. The arms, although worthless, were retained. Their best arms had been secreted and their valuable ponies moved to places of safety before the military surrounded their camp. The failure of this attempt to disarm and dismount the Bannocks served to arouse and exasperate the Indians, and was followed, as the agent predicted that it would be, by retaliation as soon as the grass was in condition to feed the Indian ponies.

Meantime the cavalry, on the 18th of January, returned to Fort D. A. Russel, and on the 5th of May the infantry also left, with the exception of one officer and twenty-two men, entirely too small a force to restrain or intimidate the malcontents.

The situation of affairs at the Fort Hall Agency, between the time of the arrest of the Indian who shot the two teamsters and the commencement of the Bannock war, may be learned by the following telegrams:

HEADQUARTERS OF THE ARMY,
ADJUTANT-GENERAL'S OFFICE,
Washington, November 27, 1877.

Lieut. Gen. SHERIDAN, *Chicago, Ill.:*

Indian agent at Ross Fork, near Fort Hall, Idaho, has reported to Secretary of Interior that, since shooting of Alexander Rhodan, Bannocks have been very bold and

threatening, and that there is danger of outbreak at any time. Beef contractor unable to hire men to deliver beef at agency. Commanding officer at Hall has furnished seven (7) men, all he can spare.

Secretary of War has referred matter, with request that one hundred (100) troops be sent immediately, and General of the Army desires you to send that force at earliest practicable moment.

Please acknowledge receipt.

THOMAS M. VINCENT,
Assistant Adjutant-General.

ROSS FORK, IDAHO, November 28, 1877.

COMMISSIONER INDIAN AFFAIRS, *Washington:*

Bannock camp moved to Cedars, seven miles from agency. Satisfied they are purchasing ammunition at settlement north of us, and otherwise preparing for war. No further depredations committed. Cold weather in our favor.

DANILSON, *Agent.*

CHICAGO, November 29, 1877.

General THOMAS M. VINCENT,
Assistant Adjutant-General, Washington, D. C.:

Your telegram of this date received. Information from commanding officer at Fort Hall, forwarded to Washington yesterday's mail, led me to believe the Bannock agent is stampeded. Re-enforcements from Camp Douglas left by rail for Fort Hall yesterday morning. Should arrive to-day. It seems to me the agent should consult with the commanding officer about disturbances, which he neglected to do.

P. H. SHERIDAN,
Lieutenant-General.

OMAHA, NEBR., November 28, 1877.

General P. H. SHERIDAN,
Commanding Division, Chicago:

The following dispatch from Captain Bainbridge, dated 27th instant, received this morning:

"Your telegram received. I was at the agency two days ago, and returned to my post with the impression that there would be no outbreak. Did not consider the matter of sufficient importance to put government to the expense of a telegram, and made a written report of affairs at agency to department headquarters.

"From report of agent last night and this morning, think it possible an outbreak may occur. Mail-carrier, a soldier, reports this evening nothing unusual at agency. Indians trading at store as usual, and everything quiet. Inasmuch as this garrison is here for protection of agency, think it strange agent did not apply to me for troops. Did not know he had made the application. Think re-enforcement unnecessarily large.
"BAINBRIDGE."

Subsequent to the dispatch to you of yesterday, a dispatch was received from Captain Bainbridge stating that there was danger of an outbreak. The above dispatch, which is a later one, is in reply to that sent him from these headquarters, and gives, I think, the true state of affairs.

Commanding officer at Camp Douglas reports that 104 men under Major Bryant left Douglas this morning for Hall.

GEO. CROOK,
Brigadier-General.

[First indorsement.]

HEADQUARTERS MILITARY DIVISION OF THE MISSOURI,
Chicago, November 28, 1877.

Respectfully forwarded to the Adjutant-General of the Army.

P. H. SHERIDAN,
Lieutenant-General, Commanding.

WAR DEPARTMENT,
Washington City, December 6, 1877.

SIR: I have the honor to transmit, for your information, a copy of a telegram from General Crook, communicating a report of Captain Bainbridge relative to an anticipated outbreak of the Bannock Indians at Fort Hall Agency.

Very respectfully, your obedient servant,

GEORGE W. MCCRARY,
Secretary of War.

To the honorable SECRETARY OF THE INTERIOR.

FORT HALL AGENCY,
Idaho, December 15, 1877.

SIR: I have the honor to transmit herewith, for your official action, a petition from the resident citizens of this vicinity praying that a sufficient number of mounted troops be stationed here to protect them from the Bannock Indians; also affidavits of Fred. S. Stevens, Joseph Warren, Albert T. Stout, and Charles W. Cline, relative to the hostility of the Bannocks.

Since the murder of Alex. Rhodan, on the 23d ultimo, of which report has been made, the conduct of the Bannocks has been very bad. Demands have been made upon them by myself and the military for the murderer, but up to this time they have failed to make the arrest, stating he had escaped from the reservation, when they well knew he was in their camp, receiving aid and comfort from them. The military post of Fort Hall is located fifteen miles from the agency, from which it is separated by a range of mountains that are almost impassable during the winter months. The troops being stationed at such a remote distance are no restraint upon the Indians, or protection to the agency or settlers. The post should be near the agency, where troops could render assistance at short notice, and should be garrisoned by either cavalry or mounted infantry.

Very respectfully, your obedient servant,

W. H. DANILSON,
United States Indian Agent.

Hon. COMMISSIONER OF INDIAN AFFAIRS,
Washington, D. C.

ROSS FORK, January 13, 1878.

COMMISSIONER INDIAN AFFAIRS, Washington:

The murderer of Rhodan was captured by the military sixty miles north of agency, on the 9th instant. Is it best to disarm and dismount the Bannocks, to punish them for not giving up the murderer, leaving them here exasperated, taking chances of their depredating the country to make good their loss, and expose the citizens to further loss of life, or let the matter drop until measures can be taken to move them entirely, which I respectfully recommend, General Smith recommends also, and the military are ready to act upon your reply.

DANILSON.

OFFICE OF INDIAN AFFAIRS,
Washington, January 15, 1878.

DANILSON, Ross Fork, Idaho:

To what place do you propose to move the Indians? Can they be moved without creating disturbance and bloodshed? Give your opinion and that of the commanding officer.

E. A. HAYT,
Commissioner.

ROSS FORK, IDAHO, January 16, 1878.

COMMISSIONER OF INDIAN AFFAIRS,
Washington, D. C.:

Bannock camp surrounded this morning; thirty-two guns and three hundred ponies captured without disturbance; their best guns, ponies, and no pistols could be found. The three companies cavalry from Fort D. A. Russell return on the eighteenth. I recommend that the Bannocks be sent with them, and held there until you decide what to do with them. Unless removed, a sufficient military force will be required to keep them in subjection.

DANILSON.

OFFICE OF INDIAN AFFAIRS,
Washington, January 17, 1878.

DANILSON, Ross Fork, Idaho:

Let Bannock prisoners be sent with military to the fort; will arrange with War Department for their subsistence.

E. A. HAYT,
Commissioner.

ROSS FORK, IDAHO, January 25, 1878.

COMMISSIONER OF INDIAN AFFAIRS,
Washington, D. C.:

What disposition will you make of the ponies captured from Bannocks? They are in charge of the military and should be disposed of. Recommend they be sold and proceeds invested in stock-cattle for benefit of Bannock tribe.

DANILSON.

OFFICE OF INDIAN AFFAIRS,
Washington, January 25, 1878.

DANILSON, *Ross Fork, Idaho* :

Telegram of yesterday received. Wait until you receive further advice from this office about disposing of ponies.

E. A. HAYT,
Commissioner.

CHICAGO, ILL., February 23, 1878.

Gen. E. D. TOWNSEND, *Washington, D. C.* :

The following dispatch is respectfully forwarded.

R. C. DRUM,
Assistant Adjutant-General.

"OMAHA, February 23.

"ASSISTANT ADJUTANT-GENERAL,
"Military Division Missouri :

"I would request that information be furnished me as soon as possible as to disposal of Indian ponies at Fort Hall, which have to be fed there at heavy expense.

"GEORGE CROOK,
"Brigadier-General, Commanding."

CHICAGO, ILL., February 25, 1878.

Gen. W. T. SHERMAN,
Washington, D. C. :

It will save much expense and complication if you will allow General Crook to sell the Bannock ponies in accordance with the counsel of the Indian Department, and, after deducting the cost of keeping them, purchase young cattle with the remainder of the money. The Indian interest in cattle is beginning to develop satisfactorily.

P. H. SHERIDAN,
Lieutenant-General.

HEADQUARTERS ARMY OF THE UNITED STATES,
Washington, D. C., February 26, 1878.

General P. H. SHERIDAN,
Commanding Division, Chicago, Ill. :

General Whipple has arrived. Your dispatch about the Shoshone ponies is given to the Secretary of War, who will see the Secretary of the Interior and determine who shall sell the ponies and invest proceeds, of which you shall have prompt notice.

W. T. SHERMAN,
General.

ROSS FORK, IDAHO, March 2, 1878.

COMMISSIONER OF INDIAN AFFAIRS,
Washington, D. C. :

Officer in command of troops here has orders to have an officer and twenty-five men report to commanding officer at Fort Hall, sixteen miles distant from agency, and balance of command to return to Salt Lake at once. This will leave agency entirely without protection at a time when the presence of troops is very necessary, as the Bannocks, upon realizing that their ponies are to be driven away and sold, will be more exasperated than ever. They have only been kept under subjection through fear of troops kept at the agency. Employés believe they will be in danger of their lives, and will leave to a man if troops are withdrawn. This is also the feeling of the settlers in the community. I respectfully request that a company of at least fifty men be left at the agency. Prompt and decided action necessary. Answer.

DANILSON.

OFFICE OF INDIAN AFFAIRS.
March 3, 1878.

DANILSON, Agent,
Ross Fork, Idaho :

War Department has been requested to leave at least fifty soldiers at your agency.

E. A. HAYT,
Commissioner.

ROSS FORK, IDAHO, *March 4, 1878.*

COMMISSIONER OF INDIAN AFFAIRS,
Washington, D. C.:

Has War Department ordered troops to remain at the agency? The troops expect to leave in the morning. Unless one company is ordered to remain here the agency will be abandoned. Answer.

DANILSON.

WAR DEPARTMENT, *March 5, 1878.*

COMMISSIONER INDIAN AFFAIRS:

All troops at Fort Hall have been ordered to remain there until further orders, and until we can hear further as to the state of affairs at the post.

GEO. W. MCCRARY,
Secretary of War.

ROSS FORK, IDAHO, *March 25, 1878.*

COMMISSIONER INDIAN AFFAIRS,
Washington, D. C.:

Military here and myself recommend that the order to sell Bannock ponies be revoked, and ponies returned to them. Number captured does not cripple them for offensive operations, and tends to make disaffected ones more troublesome. Twenty-five families have commenced farming. All of them have lost ponies. One man who came in last fall, and not implicated in the shooting, loses twenty head. Expenses of driving and selling will leave scarcely anything to invest.

DANILSON

OFFICE OF INDIAN AFFAIRS,
Washington, March 26, 1878.

DANILSON, Agent,
Ross Fork, Idaho:

Military commander consenting, the ponies can be returned, provided Indians will do more farming than they would without them.

E. A. HAYT,
Commissioner.

OFFICE OF INDIAN AFFAIRS,
Washington, April 1, 1878.

Agent DANILSON, *Ross Fork, Idaho:*

Have ponies been distributed? General Crook thinks that Salt Lake troops are no longer needed. Report immediately.

WM. M. LEEDS,
Acting Commissioner.

ROSS FORK, IDAHO, *April 2, 1878.*

Lieutenant-General P. H. SHERIDAN, *Chicago, Ills.:*

After a talk with the agent, the military officers, and principal men of the Indians, I have come to the conclusion that it would be best to return to the Indians the ponies lately taken from them in the surround. The greater part of them got away with their animals, leaving in our hands not enough to cripple them in case of hostilities, and these the property of our friends.

The arms taken do not amount to much, as the tribe seems to be well supplied. I am satisfied there will be no trouble, and that very good feeling exists; and would therefore recommend that the additional troops lately sent here be now returned to Salt Lake. I leave here to-day, and expect to reach Franklin to-morrow.

GEORGE CROOK,
Brigadier-General.

HEADQUARTERS MILITARY DIVISION MISSOURI,
Chicago, April 3, 1878.

General GEORGE CROOK, *Ogden, Utah:*

Your telegram of yesterday received. If you think it best you can return the ponies to the Indians, and in a day or two I will arrange for the return of the troops to Salt Lake.

P. H. SHERIDAN,
Lieutenant-General.

CHICAGO, ILLS., April 3, 1878.

General E. D. TOWNSEND, *Washington, D. C.:*

General Crook reports such a good condition of affairs among the Fort Hall Indians as to induce me to ask the return of the Salt Lake troops. They were stopped some time ago while *en route* to Camp Douglas by direction of the General of the Army.

P. H. SHERIDAN,
Lieutenant-General.

[First indorsement.]

HEADQUARTERS OF THE ARMY,
Washington, April 3, 1878.

Official copy respectfully referred to the honorable Commissioner of Indian Affairs for an expression of opinion in regard to this request, asking immediate attention.

I think the agent at the Shoshone Agency, near Fort Hall, unduly scared.

W. T. SHERMAN, *General.*

FRANKLIN, IDAHO, April 4, 1878.

COMMISSIONER INDIAN AFFAIRS, *Washington, D. C.:*

Ponies have not been delivered. It is absolutely necessary to keep one company troops at agency. General Crook cannot know of his own personal knowledge that troops are not needed. Military prefer the luxuries of Salt Lake, and are making every effort to get ordered back.

DANILSON.

HEADQUARTERS DEPARTMENT OF PLATTE,
In the Field, Franklin, Idaho, April 3, 1878.

COLONEL: I have the honor to report that on the 2d instant I reached the Shoshone and Bannock Agency at Ross Fork, Idaho, and immediately had a conference with the military officers temporarily stationed at the agency, Captain Bainbridge, Fourteenth Infantry, commanding Fort Hall, Mr. Danilson, the agent, and the principal men of the Bannocks and Shoshones. This conference satisfied me of the peaceable intentions of the Indians, and their determination to remain on good terms with our people.

The murder committed last summer was an individual act and not one with which any portion of the tribe sympathized. The disarming and dismounting of the tribe under these circumstances appears to have been unnecessary, especially since such of them as were the least disposed to be friendly had time to learn of the move contemplated and to conceal their animals and guns, leaving the burden of the punishment to fall upon our best friends and those upon whom we should have to rely in case of any trouble.

The tribe would not feel the loss inflicted, which was probably not one-fourth the total number of ponies, and its remembrance will only survive as an irritant. Although the loss of their ponies would not cripple these Indians in the event of hostilities, it will seriously interfere with their farming, for which purpose they are beginning to use them. The return of these animals would be good policy, as would also be that of the arms, which are almost entirely old-fashioned pieces, of very little account except for shooting such small game as can be found near the agency, while their retention will be dwelt upon as a grievance.

While there seems to have been some occasion for alarm in the fact of the murder referred to, the spirit of the Indians in general was not properly represented and the condition of affairs was unduly exaggerated. The tribe have no intention of going to war, and manifest most friendly feelings. In my conversation with Mr. Danilson, and from the complaints of the Indians, I learned that the rations issued at this agency are entirely inadequate. Hitherto it has been the practice to permit the young men to hunt the buffalo in the Big Horn and Yellowstone country, but the rapid settling up of that region, as well as of the country around this agency, makes any such dependence for the future most precarious, and I therefore urgently recommend an increase to the amount now allowed the Sioux and other Indians.

The maintenance of troops at the agency is in my opinion no longer necessary, and they can now be returned to their proper stations at Salt Lake.

GEORGE CROOK,
Brigadier-General.

ADJUTANT-GENERAL MILITARY DIVISION MISSOURI,
Chicago, Ill.

[First indorsement.]

HEADQUARTERS MILITARY DIVISION MISSOURI,
Chicago, April 10, 1878.

Respectfully forwarded to the Adjutant-General of the Army.

P. H. SHERIDAN,
Lieutenant-General Commanding.

WAR DEPARTMENT,
Washington City, April 16, 1878.

SIR: I have the honor to transmit for your information a copy of General Crook's report, dated April 3, 1878, of the result of his conference and observations at the Shoshone and Bannock Agency, and stating that the disarming and dismounting these Indians was unnecessary, and recommending that their rations be increased.

Very respectfully, your obedient servant,

GEO. McCRARY,
Secretary of War.

The Hon. SECRETARY OF THE INTERIOR.

WAR DEPARTMENT,
Washington City, April 11, 1878.

SIR: I have the honor to transmit for your information a copy of a telegram from General Crook, stating that the Indian ponies lately taken from the Indians at Fort Hall Agency should be returned to them; he also reports in regard to the additional troops sent to Ross Fork, Idaho, and recommends their return to Salt Lake.

Very respectfully, your obedient servant,

GEO. W. McCRARY,
Secretary of War.

The Hon. SECRETARY OF INTERIOR.

HEADQUARTERS DEPARTMENT OF THE PLATTE,
Omaha, Nebraska, April 23, 1878.

[General Orders No. 34.—Extract.]

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2. Companies D, E, and G, Fourteenth Infantry, are relieved from duty at Fort Hall Agency, Idaho, and will return without delay to their proper station, Camp Douglas, Utah. The commanding officer of the battalion will detail a commissioned officer and twenty-five enlisted men to remain at the agency, and the officer thus detailed will report to the commanding officer Fort Hall, Idaho.

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By command of Brigadier-General Crook.

ROBERT WILLIAMS,
Assistant Adjutant-General.

OFFICE OF INDIAN AFFAIRS,
Washington, June 5, 1878.

DANILSON, *Agent, Ross Fork, Idaho:*

Telegraph immediately full report of the situation of your Indians. Nothing has been heard from you, and the papers are filled with rumors.

E. A. HAYT,
Commissioner.

ROSS FORK, IDAHO, June 6, 1878.

COMMISSIONER OF INDIAN AFFAIRS, *Washington, D. C.:*

Nine hundred and eighty Indians here, mostly Shoshones, engaged in farming. Most of the Bannocks have left the agency. Have seen by papers they are committing depredations in Camas Prairie and vicinity, one hundred and fifty miles west of agency. A Shoshone has just come in from them and confirms newspaper reports. Indians here are very much excited. One officer and twenty-five soldiers here; need more troops. Will keep you advised of situation.

DANILSON, *Agent.*

ROSS FORK, IDAHO, June 10, 1878.

COMMISSIONER OF INDIAN AFFAIRS, *Washington, D. C.:*

Could not keep roaming Bannocks here when the amount of supplies was scarcely enough to feed Indians engaged in farming. See your dispatches of April 3d and 9th. All quiet at agency.

DANILSON.

In the light of succeeding events it is evident that neither the military officers at Fort Hall, nor General Crook, who made a visit to Fort Hall for the purpose of ascertaining whether the troops ought to remain

there or not, nor General Sherman, who thought unfavorably of the agent because he wanted troops to remain at the agency, had a true appreciation of the effect which the unsuccessful attempt to capture arms and ponies would have upon the Indians. Notwithstanding the fact that against their will one officer and twenty-five men were left at the agency, the Indians broke out in hostilities, as the agent said that they would, as soon as the grass was in good condition for their ponies to travel. The long chase after these Indians is a matter of record, and as, with the history of the war, it more properly belongs to the War Department to set it forth, suffice it to say that under the vigorous campaign of General O. O. Howard the war begun in June was ended by the last of August, and the survivors of the hostile bands, either by capture or surrender, were held as prisoners of war. General Howard reports their number, in men, women, and children, to be about 1,000. In this connection the following letter, which was referred to this office by the honorable the Secretary of the Interior, will shed some light upon the difficulties with which General Howard had to contend:

UNITED STATES MARSHAL'S OFFICE,
Boisé City, Idaho, August 8, 1878.

SIR: I wish to call your attention to the inclosed copy of a letter just received from Department commander, Brig. Gen. O. O. Howard. I have sent the letter above referred to to the Hon. Charles Devens, Attorney-General of the United States, in order that he may know the facts and give me such instructions as to him may seem proper.

It is a notorious fact here that the present hostile Indians could not keep the field but for the constant supply of arms and ammunition received from white men. There are four suspected localities, to wit, Malad City, Silver City, a post near Lewiston, and a post near Great Camas, on the overland route. The only mode of detection that to my mind promises success would be to employ detectives at the suspected points, and in time either the practice would be broken up or the guilty parties brought to justice.

I trust you will confer with the honorable the Attorney-General, and devise some means that will be effective to destroy this infamous practice.

E. S. CHASE,
United States Marshal for the District of Idaho Territory.

Hon. CARL SCHURZ,
Secretary of the Interior.

Although the Bannock war was virtually ended in August, it will be learned by the following report, which was referred to this office by the honorable Secretary of the Interior, that a fight occurred at Clark's Fork as late as September 5:

CHICAGO, September 9, 1878.

E. D. TOWNSEND, Washington, D. C.:

Following dispatch just received, and forwarded for the information of the General of the Army.

P. H. SHERIDAN,
Lieutenant-General.

"OMAHA, NEBR., September 9, 1878.

"Major Upham, commanding Camp Brown, telegraphs as follows:

"Dick Washaki's son, just in from Clark's Fork, brings account of a successful fight of a detachment of infantry and Crow Indians with about twenty lodges of hostile Bannocks. Fight occurred on the morning of the 5th instant, on Clark's Fork, the troops killing a good many horses—mostly stolen Americans—and all the squaws and children. One non-commissioned officer, one citizen, and one Crow killed, and one soldier wounded. Ploqua, Bannock chief, among the captured."

"R. WILLIAMS."

In his report to headquarters from Fort Hall Agency, under date of December 25, 1877, General Smith said: "It is the opinion of the agent and others that the Bannocks will cause trouble in the spring." The dispatches cited prove conclusively that the agent was not unduly

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scared, and that the military were truly and well informed by the Indian agent and others of the actual state of affairs at Fort Hall Agency in time to be prepared for hostilities. They were on the spot, and could not have had any more favorable situation or opportunity for the control of the discontented and disaffected Bannocks and the forcible prevention of an impending outbreak than was actually in their possession.

Respecting the complaints of a lack of sufficient rations having been furnished the Bannocks of Fort Hall Agency, there were no specific quantities of subsistence supplies agreed to be furnished to them by the treaty of July 3, 1868. There are 1,507 Indians at the Fort Hall Agency more or less dependent for their support upon the government and treaty funds. For the fiscal year 1877 only \$14,000 was appropriated for their subsistence. For the fiscal year 1878, \$29,000 was appropriated, but as the Indians were prevented from hunting during the Nez Percé war the sum appropriated was entirely insufficient for their support, and they became discontented and restless until bloodshed and murder were followed by open war. For the present fiscal year only \$24,000, which is less than 4½ cents per day per capita, has been appropriated; but it is to be hoped that the \$15,000 additional, which was asked for by this office at the last session of Congress, will be granted during the coming session. The Indians at Fort Hall Agency have received as great a quantity of subsistence as the funds appropriated by Congress has enabled the Indian Office to purchase for them. This office cannot be held responsible for a discontent which was mainly caused by late and scant appropriations.

NORTHERN CHEYENNE RAID.

In accordance with an agreement entered into with the Government of the United States, dated September 26, 1876, the Northern Cheyennes were taken from the Sioux country in Dakota to the Cheyenne and Arapaho Agency in the Indian Territory. Nine hundred and thirty-seven of them arrived there on the 5th of August, 1877, in charge of Lieutenant Lawton, of the Fourth United States Cavalry. After reporting to Col. J. K. Mizner, the commandant at Fort Reno, they were formally transferred to the United States Indian agent, John D. Miles, on the second day after their arrival.

On the 9th of September of the present year, a party of about 300, under Chief Dull Knife, including 87 warriors in all, started out from the agency with the determination to return northward and join their old friends, the Sioux. .

Their agent states that they have never been satisfied since they arrived at the agency; that the Dull-Knife band were displeased with the system of issuing rations to heads of families and individual Indians, and that the soldier element of the tribe had at first compelled their women to place in one pile the supplies which had been dealt to them, and having taken to themselves the lion's share, left the rest to be divided as they saw fit. He states that they have always been defiant, claimed that they did not enter into the agreement of September 26, 1876, and said that they would remain at the agency as long as they chose, and no longer; that they have been a great drawback to the advancement of the rest of his Indians, and have displeased those of the Northern Cheyennes who still remain at the agency. He denies *in toto* the statements which have been made, that for lack of provisions they have been obliged to eat diseased meat, and affirms that there was really no good cause for dissatisfaction on their part. As it has been charged

that they were dissatisfied, and left the agency on account of scant rations and to avoid imminent starvation, a few facts concerning the subsistence supplies which have been furnished to them will not be amiss.

The per diem ration due to each man, woman, and child under the treaty is: Beef, 1½ pounds, net (or 3 pounds, gross), or in lieu thereof, ½ pound of bacon; flour, ½ pound; corn, ½ pound; and for each 100 rations, coffee, 4 pounds; sugar, 8 pounds; and beans, 3 pounds; this is more than sufficient for the ample sustenance of any community in the United States. Excluding Indians upon the hunt there has been at the agency between the time of their first arrival, August 5, 1877, and the time when the Dull-Knife party left the agency, September 7, 1878 (a period of 398 days), an average of 860 Indians.

They were entitled to the following quantities of supplies:

Beef	1, 026, 840 pounds.
Flour	171, 140 “
Corn	171, 140 “
Coffee	13, 725 “
Sugar	27, 450 “
Beans.....	10, 294 “
Total	1, 420, 589 “

There was dealt out to them during the time mentioned the following :

Beef	1, 242, 208 pounds.
Bacon and lard.....	20, 016 “
Flour	157, 060 “
Corn	18, 190 “
Coffee	10, 425 “
Sugar.....	20, 950 “
Salt	2, 272 “
Soap.....	2, 297 “
Hominy.....	14 “
Tobacco	994 “
Baking powder.....	894 “
Total	1, 475, 320 “

There were due them by treaty 1,420,589 pounds of subsistence supplies, and there have been dealt to them 1,475,320 pounds, or a surplus of 54,731 pounds. This statement disposes of all the clamor that has been current during the year that these Indians did not receive rations to the amount to which they were entitled under the treaty.

The treaty requires that “rations shall in all cases be issued to the head of each separate family,” and it stipulates that in lieu of the supplies therein named the Commissioner of Indian Affairs may furnish their equivalent. Section 3, page 449, United States Revised Statutes, provides :

That for the purpose of inducing Indians to labor and become self-supporting it is provided that hereafter, in distributing the supplies and annuities to the Indians for whom the same are appropriated, the agent distributing the same shall require all able-bodied male Indians between the ages of eighteen and forty-five to perform service upon the reservation for the benefit of themselves, or of the tribe, at a reasonable rate to be fixed by the agent in charge, and to an amount equal in value to the supplies to be delivered; and the allowances provided for such Indians shall be distributed to them only upon condition of the performance of such labor, under such rules and regulations as the agent may prescribe; provided that the Secretary of the Interior may, by written order, except any particular tribe or portion of tribe from the operation of this provision when he deems it proper and expedient.

It will be seen by the law above quoted that it was the duty of the agent to withhold supplies at times in order to compel the Indians to work if it was possible to get them to do so. No blame can attach to the agent for attempting to enforce this statutory provision by withholding coffee, sugar, and tobacco, which were the only supplies that were at any time withheld.

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The agent's statement that the Northern Cheyennes had no good ground of complaint is sustained by the facts herein presented. The truth is that Dull Knife's band contained the vilest and most dangerous element of their tribe. They should have been disarmed before leaving the north, and dismounted upon their arrival at the agency, while still in the hands of the military. To the neglect which permitted them to retain the Springfield carbines captured by them in the Custer fight may be attributed the horrible atrocities perpetrated by the Northern Cheyennes. The trail of blood which they left behind them in Kansas could not have been made and the outrages could not have been perpetrated but for the possession of these arms, which not only enabled them to defend themselves from attack, but to carry carnage and destruction among the settlers of Kansas.

While in Kansas they murdered more than forty men, women, and children, and outraged some ten or more women.

The War Department has been requested to send to Fort Wallace, in Kansas, the Cheyenne prisoners whom they now hold, to the end that the civil authorities may select those who can be identified, and have them punished for the murders and outrages of which they have been guilty. No undue sentimentality should stand between them and a just punishment for their crimes.

THE MISSOURI RIVER.

The east bank of the Missouri River, for five hundred miles above the Yankton Agency, was withdrawn from white settlement in the year 1875; and since that time the better class of settlers, respecting the authority of law, have kept away. On the other hand, the "squaw-men," the most degraded and lawless of adventurers, are to be found there in considerable numbers. They steal the cottonwood growing on the river bottoms and sell it green to the passing steamboats, at from \$3.50 to \$4.50 per cord; and the steamboatmen pay the squatters in goods, or even in such forbidden things as arms, ammunition, and whisky. Not all steamboat owners do this, but many of them do. The squatters in turn drive a profitable trade with the Indians, selling them ammunition and whiskey.

This state of things should be immediately remedied by driving out the squatters and by allowing the Indians to cut and cord the wood, and when it is perfectly seasoned the agent in charge should sell it to the steamboat owners at the uniform price of, say, \$3 per cord. The money so received should be divided *per capita* among the Indians by whose labor the wood was cut and hauled. It will, however, require action by Congress, legalizing the cutting of wood for that particular purpose, but the reform cannot be made a day too soon. In this connection it is proper to say that wood for the river steamboats is indispensably necessary, and as the boats convey large amounts of government goods, both for the Indian and the military service, their owners should be able to purchase fuel honestly, and the supply should be regular and always accessible, so that no undue anxiety need be felt about obtaining a sufficient quantity at all times. At the price stated the government goods could be carried more cheaply than at present, when owners are subject to constant anxiety and extortion, and sometimes have to send their hands ashore with axes to cut green wood for fuel.

EDUCATION AND CIVILIZATION.

The statistical tables which accompany this report furnish evidence

of a steady increase in the number of Indians engaged in civilized pursuits, the number brought under religious influences, and the number of children attending schools. The theory that Indians must be regarded as irreclaimable savages, to be restrained only by brute force, is the natural outgrowth of the policy formerly pursued toward them. Brought into contact with only the barbarous element of white society; learning from such exemplars only new vices; defrauded of their dues; driven from their lands; their women debauched, and themselves crazed by drink, every base instinct of their savage Indian nature was aroused and intensified; brute force was resorted to as their only means of redress, and in turn they were met by brute force as the only means of correction.

The results, after trial during the few years past, of the peace policy, imperfectly carried out as it has been, prove beyond a doubt that the eventual civilization of Indians may be reached through the education of their children; and further, that it can be brought about more speedily by that method than by any other. Many adult Indians can of course, in the mean time, be taught to raise their own subsistence from the ground, to herd cattle, or to do mechanical work, but while self-support is one of the cardinal points to be reached, civilization, the ultimate end, can only be accomplished through an education of the head and heart. The Navajoes and the Moquis Pueblos are capable of self-support, but having no schools, are still degraded heathen, apparently no nearer civilization than they were half a century ago. Such education can be given only to children removed from the example of their parents and the influence of the camps and kept in boarding-schools. Experience shows that Indian children do not differ from white children of similar social status and surroundings in aptitude or capacity for acquiring knowledge, and opposition or indifference to education on the part of parents decreases yearly, so that the question of Indian education resolves itself mainly into a question of school facilities.

But the figures contained in the tables herewith fall far short of indicating a purpose on the part of the government to make this question one of speedy solution. At a low estimate, the number of Indian children of school-going age, exclusive of those belonging to the five civilized tribes of the Indian Territory, may be placed at 33,000. Of these, not less than 8,000 could, within a short time, be gathered into boarding-schools except for the fact that the teachers are yet to be employed, the school-buildings are yet to be erected, and the funds for both, and for feeding and clothing the scholars, are yet to be appropriated.

The whole number of children who can be accommodated in the boarding-schools now provided at the various agencies is only 2,589. To these may be added 5,082 more, who can find room in day schools—those expensive makeshifts for educational appliances among Indians—making a total of only 7,671 Indians who have yet been placed within reach of school facilities. And when it is considered that the 50 youth who spend from one to three years in a boarding-school must step from that into the social atmosphere created by 500 youth and 2,500 other members of the tribe who are still in ignorance, it can readily be seen that the elevation of an Indian tribe is being attempted by a method at least as slow as it is sure, and that what should be the work of a year will be protracted through a decade, and the work of a decade through a generation.

In many cases this policy is not only shortsighted, but in direct contravention of treaty stipulations, as, for example, the treaty of 1868, with the Kiowas and Comanches, which reads as follows:

And the United States agrees that for every thirty children between said ages [six and sixteen years] who can be induced or compelled to attend school, a house shall be

provided and a teacher competent to teach the elementary branches of an English education shall be furnished, who will reside among said Indians and faithfully discharge his or her duty as teacher. The provisions of this article to continue for not less than twenty years.

The one boarding-school at the Kiowa and Comanche Agency, which will accommodate 75 pupils, is filled and the other 425 children are waiting their turn. To comply with treaty stipulations with these two tribes would more than absorb the entire fund appropriated for the civilization and education of all the Indians in the Indian Territory, exclusive of the five civilized tribes. Even more glaring violations of educational clauses in Sioux treaties might be cited.

In view of the above facts and of the large returns which every expenditure in the cause of education nets to the work of civilization, I trust that Congress will be urged at its next session to appropriate not less than \$200,000 for the opening of new schools and the maintenance of those already established.

Very much the same line of argument will apply in regard to the wisdom, duty, and necessity of giving Indians an increased number of instructors in farming and other industrial arts. Only one farmer at an agency to guide, encourage, and assist from 1,000 to 5,000 untrained Indians in the spring planting will scarcely give assurance of their speedy transformation from hunters or idle consumers of rations into successful farmers; and no one will be surprised at the slowness and difficulty of a work carried on under such disadvantages. Liberal appropriations for the purchase of agricultural implements, domestic animals, &c., and the employment of teachers of farming, are in the line of economy.

INDIAN STATUTES.

The present statutes covering the duties of the various officials employed in the Indian service need a thorough and careful revision. Many sections have become obsolete, for example, those relating to the duties of superintendents; at the present time we have no such officers, and yet a number of sections are directed to a definition of their duties. Many other sections have but little bearing on the effective working of the bureau, and new provisions could be added, to the advantage of the service. A defect like the following might be cured, viz: empowering an inspector to suspend an agent, and substitute another in his place, while the executive officer of the bureau, the official superior of the inspector, has no such power. In the management of Indian affairs a stricter official responsibility is demanded than in any other branch of the public service; and as the question of peace or war may at any time depend upon the acts of subordinates, the power to remove instantly, for cause, should be lodged with the head of the bureau, subject, always, to the approval of the Secretary of the Interior.

THE DUTY OF THE GOVERNMENT TO ESTABLISH MARRIAGE RELATIONS.

In the process of Indian civilization it is necessary to build from the foundation, and therefore it is proper to begin with the family relation. There are at the present time no valid marriages among the Indians, except where, in a few instances, a marriage ceremony is performed by the agent. The custom among the Osages is about the same as among all other tribes not fully civilized, and is somewhat as follows: A man who desires to marry goes to the lodge of the woman he proposes to

take and sits down outside of the door, awaiting an invitation to go in. At first he sends a present of one pony, and if in response to the gift there is no invitation to come within the lodge, he sends another pony as a present; if the second does not answer the purpose, a third, fourth, fifth, or even a tenth is sent. When the number of ponies is satisfactory to the father of the woman, the donor is invited into the lodge and the bargain is completed. If it so happens that he takes the oldest girl in the family he is entitled to take all her younger sisters to himself; or, if he does not take them for himself, he bargains with any after applicant for their possession. The whole proceeding is a mere matter of bargain and sale, in which women are disposed of without their consent, and very much like cattle in the market. There is nowhere any limit to the number of wives (as they are called) which an Indian may have, and by their custom he can change the occupants of his lodge as often as he chooses.

As our civilization is opposed to polygamy, some decisive action should be taken regulating and establishing marriage in all Indian communities. An act of Congress should provide wholesome and proper marriage laws for Indian tribes. The agent should be required to marry all the Indians cohabiting together upon the various reservations, giving them a certificate of such marriage; and after the beginning of the next year no Indian should be permitted to marry more than one wife. White men cohabiting with Indian women should be compelled either to marry them or to quit the reservation. The institution of proper and lawful marriage as herein stated would be a great step in the way of the ultimate civilization of the Indians, and a safeguard in perpetuating title to lands held in severalty.

OGALALA AND BRULÉ SIOUX.

Near the close of its last session Congress passed an act authorizing the Secretary of the Interior to appoint a commission, to consist of three persons, whose duty it should be to visit the Red Cloud and Spotted Tail Indians on their reservations, and endeavor to prevail on them to remain near the Missouri River. While the stipulations of the agreement entered into by these Indians in 1876 that they should receive their annuity goods and supplies near the Missouri River was the law of the land, yet, when their representatives were on a visit to Washington in September, 1877, the President, in consideration of their earnest desire to go back into the interior, promised them that "with the consent of the great council of the nation," they might go thither in the spring and select suitable locations where there was sufficient arable land, with wood and water, to make a home for themselves and their children. Although holding this promise sacred, Congress thought it not improper to institute an inquiry whether an arrangement might not be made, with the consent of these Indians, and for their own good, which should lessen the cost of the transportation of their annuities and supplies for all future time; and, with this object in view, the act organizing a commission was passed.

General D. S. Stanley, U. S. A., J. M. Haworth, late Indian agent, and Rev. A. L. Riggs, of Santee, were appointed a commission under the act, and they were instructed to visit these Indians and to see whether their consent might not be obtained to the establishment of an agency nearer to the Missouri River, or, in case that could not be obtained, they were then to examine personally such locations as these Indians might choose for themselves, and report thereon. At your request I accompanied the commission, in order that the department might act quickly and make

up, as far as possible, for the lost time caused by the delay of Congress in passing the Indian appropriation bill.

The first council was held with the Spotted Tail Indians at the Old Ponca Agency, on Saturday, July 6. Spotted Tail spoke for the tribe, and, having an eye to the maintenance of his chieftainship, was apparently as impatient for immediate removal to the locality selected by him as the youngest chief in the tribe. The tenor of his remarks on this occasion, however, has been widely misrepresented by the press and other reports of them which do great injustice to the good sense of this chief. During the conference the Indians withdrew from the council for a brief time, after which they returned and listened patiently to the members of the commission, and to the explanations made by myself of the time it would probably take to remove them properly and settle them. Spotted Tail remained until late in the evening in conference with the commissioners, and returned early next morning. He would have gone with them to the Red Cloud Agency if the proposition had been made to him in council. He did, however, send "Swift Bear," his trusted lieutenant, and several other chiefs, overland to Red Cloud to assist the commission in their work at that agency. I am thus particular, as the spirit of these Indians has been gravely misunderstood.

It was clearly ascertained at this conference that their present location was very unsatisfactory to these Indians on account of alkaline water and scarcity of wood. Spotted Tail himself considered the location unhealthy on that account, and had lost quite a number of the young people of his tribe by death, which he attributed to that cause. The commission, therefore, reluctantly concluded that it was best to consent to the removal of the Indians, provided the location they had selected should be found on examination to be in all respects suitable. Such an examination was made, with satisfactory results, and the commission located the agency at the junction of Rosebud Creek and White River.

The agency has been called the Rosebud Agency, and is about 65 miles west of Rosebud landing, on the Missouri River, which landing is about 20 miles south of the point where the White River empties into the Missouri. The Indians are now removed to the agency; quite a number of buildings have been erected there, as well as a warehouse at the landing.

Last winter, when these Indians were removed from their old agency in Nebraska, 112 wagons and 225 yoke of oxen were purchased by the government to transport the property of the Red Cloud and Spotted Tail Indians to the Missouri River; but as severe winter weather set in before the train could be put in motion, it was held during the winter at Camp Robinson, Nebraska, and was not moved eastward in the spring because of the uncertainty as to the location finally to be decided upon for the permanent abode of the Indians. After the approval of the selection of a location on the Rosebud, a train of 56 of these wagons and 112 yoke of oxen was started east with the effects of the Brulé Sioux for the Rosebud, and after the delivery of its load it was pushed eastward to the Missouri, when it commenced the transportation of supplies from that river to the agency in fulfillment of an agreement made with the Spotted Tail chiefs to transport their own supplies.

Besides ox-teams, the department has furnished the Indians with 100 wagons and 200 sets of double harness to complete the transportation outfit, and has also adopted the plan of hiring Indians for drivers, each of whom furnishes four horses of his own, and is paid \$30 a month and rations for his services and the use of his team. In addition to the stock

already furnished, the department has purchased for these Indians 500 two-year-old heifers and 50 cows for delivery to them next spring.

The treaty of 1868 provides for the building of warehouses, agency buildings, and school-houses; also, of dwelling-houses for the principal chiefs. When these buildings are completed, sufficient agricultural implements furnished, and a competent farmer placed in charge to direct the Indians in their work, we may look for a decided improvement in civilization. Never before have these Indians had an opportunity to take root in the soil. Notwithstanding the many sensational reports circulated within the past few months by parties interested in advancing rates of transportation, which misrepresent these Indians as hostile to the government, no act of hostility has occurred, but they have patiently set themselves to the task of preparing to meet the severities of the coming winter.

On Thursday, July 11, the commissioners and myself met the Red Cloud Indians in council, and after a full consultation the commission found them firmly bent on going west to the vicinity of White Clay Creek. Nothing could have been kinder or more friendly than the spirit displayed by Red Cloud before the council, during its session, and afterward. He appeared to much greater advantage than he did on his last visit to Washington, when, in contrast to Spotted Tail, he was ill at ease. Red Cloud and his most influential chiefs went with the commission to Wounded Knee and White Clay Creeks, and after a full conference, the commissioners were satisfied that his location was well chosen in all respects, except that its distance from the Missouri involved increased cost of transportation. After looking in other directions, and making an offer of money or cattle if the chiefs would select some location nearer the river, and failing to obtain their consent, the agency was finally located by the commission on White Clay Creek. For fuller particulars in regard to both locations, I have the honor to refer you to the report of the Sioux commission, page 156 of appendix.

Upon the settlement of the question of location, the department advertised for proposals to erect buildings at White Clay, and the lowest responsible bid was three and one-half times greater than the cost of precisely similar buildings heretofore erected on the Missouri River; consequently these bids were all rejected. An examination was made of the buildings at the old Spotted Tail and Red Cloud Agencies in Nebraska. There had been some thoughts of selling these buildings on the removal of the Indians last year, but the result of the examination proved the wisdom of holding them, as they were found to be in good condition and well worth removing. Accordingly they were taken down carefully and removed by 56 wagons and 112 yoke of oxen, forming Red Cloud's portion of the outfit of last year. Thirty carpenters were immediately engaged to erect the buildings, to be ready on their arrival at the new location.

Advertisement for proposals for the transportation for Red Cloud's annuity goods and supplies was made in the usual way, but as the cost of the transportation computed at the lowest bid amounted to \$47,500, the bids were rejected and 100 wagons, complete for the purpose, were bought at a cost of \$6,200, together with 200 sets of double harness, at a cost of about \$4,400, thus enabling the Indians to do their own transportation at a very large saving to the government, and leaving material on hand for any future transportation needs.

Soon after the rejection of these bids, parties thinking to further the interests of transportation men, purposely set fire to the grass on the route between Rosebud Landing and Rosebud Agency. Agent Pollock

reports that for forty miles westward from the Missouri River there is scarcely a blade of grass left. Captain Pratt, of the United States Army, who was at the time engaged in collecting children for the Hampton school, reported the firing of the prairies, and states that they were set on fire at innumerable points almost simultaneously, and at places but a few rods apart, with the manifest determination to make the work of destruction thorough and complete. Evidently this method was resorted to for the purpose of making a corner in the transportation market; and the burning of the grass is a serious obstacle in the way of supplying 13,000 Indians with food for the coming winter. For a distance of more than forty miles it is necessary for each team to carry corn sufficient to feed the animals by the way. This incident will serve to enlighten the public as to the nature of the obstacles to be overcome in the Indian service. In consequence of this disastrous fire a base of supplies had to be opened at Sydney, Nebr., for the Red Cloud Indians. There is an excellent road from that point to the Black Hills, over which the supplies for the agency must pass via Camp Robinson.

To assist in the preparation of lumber and timber for buildings to be erected at the new agency, called Pine Ridge Agency, a 30-horse power steam-engine and boiler was bought and shipped to the agency; also a saw-mill and planing-mill, and a mill for grinding corn. With these implements on the ground, and abundant timber at hand, it will be the fault of the Indians if they are not comfortably housed at their new location before many months have passed by.

The department has also purchased 500 heifers and 50 cows, to be delivered in the spring. Both tribes will be in condition to work out their civilization as they have never been before, and every effort will be made by the department to put them in the way of earning their own support.

In all the large Indian removals heretofore undertaken the government has had to pay enormously by reason of the misrepresentations put afloat by parties interested in getting profitable transportation contracts; and the same influences were brought to bear recently, when many well-meaning persons by letter and telegram painted in vivid colors the immediate dangers of Indian war and bloodshed if contracts were not made instantly, regardless of cost. Fortunately the department was too well advised of the real situation of affairs to yield to panic, and the removal has been made peacefully and at a comparatively small outlay. As a result there is sufficient money in hand to feed these Indians and help them handsomely on the way to civilization and self-support.

Red Cloud, to show his entire cordiality toward the government, has taken some hostile Cheyennes, and is ready to hand them over to the government to deal with them as it thinks proper. The present condition of the Ogalala and Brulé Sioux is exceedingly favorable to their early advance in the arts of civilized life. Both their leading chiefs have shown undoubted friendship for the white man, and they are earnestly bent on promoting the welfare of their people and the education of their children. Their present location is favorable to agriculture and stock-raising, and there is no doubt that these Indians will take readily to the latter occupation. With proper tutelage there is no reason why they may not become industrious farmers and stock-raisers. If, however, they should be left without proper instruction and encouragement, very little progress will be made. No other work so greatly demands, or will more largely repay, the fostering care of the government.

Arrangements have been made to survey the lands of the Red Cloud and Spotted Tail Indians, so that by spring they will be able to take up allotments in severalty, as provided for in the treaty.

CHIEF JOSEPH.

On the surrender of Joseph and his band of Nez Percés, General Miles recommended that they be kept on the Tongue River until the question of their final disposition could be definitely determined. The Lieutenant-General of the Army strongly objected to this, on account of the expense attendant on furnishing them with supplies, and an order was issued by the War Department, in November, 1877, to send all the Nez Percé prisoners to the Missouri River, to Fort Lincoln or Fort Riley; on the 20th of the same month another order was issued to have them forwarded to Fort Leavenworth, instead of keeping them at either of the points named. November 27, 1877, the Lieutenant-General notified the Secretary of War of their arrival at the latter fort, and recommended that this bureau be requested to take charge of them at the earliest practicable date. The number of prisoners reported by the War Department, December 4 last, was as follows: 79 men, 178 women, and 174 children, making a total of 431. A few scattered members of the band were subsequently taken by the military and also sent to Fort Leavenworth.

The necessary provision having been made by Congress just before the close of the last session for the settlement of these Indians in the Indian Territory, this office, on the 9th of July last, recommended that the War Department be requested to cause the necessary orders to be issued to the commandant at Fort Leavenworth to deliver the prisoners to an agent, who would be designated by this bureau to receive them. Accordingly, on the 21st of the same month they were delivered to United States Indian Inspector McNeil and United States Indian Agent H. W. Jones, who without military escort conducted them to the location selected for them in the Indian Territory. The number reported to have been turned over to the inspector and agent was 410, three of whom—children—died on the route.

Inspector McNeil reported that the camping place selected by the commandant for these Indians, and where he found them, was in the Missouri River bottom, about two miles above the fort, "between a lagoon and the river, the worst possible place that could have been selected; and the sanitary condition of the Indians proved it." The physician in charge said that "one-half could be said to be sick, and all were affected by the poisonous malaria of the camp." After the arrival of Joseph and his band in the Indian Territory, the bad effect of their location at Fort Leavenworth manifested itself in the prostration by sickness at one time of 260 out of the 410, and within a few months they have lost by death more than one-quarter of the entire number. A little care in the selection of a wholesome location near Fort Leavenworth would have saved very much sickness and many lives.

Since the location of these Indians in the Indian Territory, others belonging to the band have been arrested in Idaho, and with the approval of the department, United States Indian Agent Monteith, of the Nez Percé Agency, has recently received instructions to take charge of and conduct them to the Indian Territory.

On the 15th of October last, I visited the Nez Percé Indians at their camp, about three miles from Seneca, Mo., on the Quapaw Reservation. I found the sickness that had prevailed since their arrival in the Territory rapidly abating. Joseph had two causes of dissatisfaction, which he presented to notice in plain, unmistakable terms. He com-

plained that his surrender to General Miles was a conditional surrender, with a distinct promise that he should go back to Idaho in the spring. The other complaint was that the land selected for him on the Quapaw Reservation was not fertile, and that water was exceedingly scarce on it; that two wells had been dug to a depth of 60 to 70 feet without reaching water; and that he did not like the country. He thought it unhealthy, and a very hard place for an Indian to earn his living by tilling the soil. He was pointed to the Modocs, who are his neighbors, and shown that they were actively engaged on their farms, and that they were prospering and getting ahead in the world.

After reflecting on the matter, and with the view of meeting his expectations, if it were possible to do so, with your consent I took him, with his interpreter and chief Husescruyt (Bald-Head), with me about 250 miles. I traveled with him in Kansas and the Indian Territory for nearly a week and found him to be one of the most gentlemanly and well-behaved Indians that I ever met. He is bright and intelligent, and is anxious for the welfare of his people. The only location that seemed to please him is situated a few miles west of the Ponca Agency, where the Shaskaskia empties into Salt Creek. The land is fertile and the country is a beautiful one, with sufficient timber for all practical purposes. When he gives up the hope of returning to Idaho, I think he will choose the location I have named.

The Nez Percés are very much superior to the Osages and Pawnees in the Indian Territory; they are even brighter than the Poncas, and care should be taken to place them where they will thrive. The extinction of Joseph's title to the lands he held in Idaho will be a matter of great gain to the white settlers in that vicinity, and a reasonable compensation should be made to him for their surrender. It will be borne in mind that Joseph has never made a treaty with the United States, and that he has never surrendered to the government the lands he claimed to own in Idaho. On that account he should be liberally treated upon his final settlement in the Indian Territory. Sooner or later the remnant of the tribe that went to Canada will return, and it will be proper and expedient to place them with Joseph's band.

The present unhappy condition of these Indians appeals to the sympathy of a very large portion of the American people. I had occasion in my last annual report to say that "Joseph and his followers have shown themselves to be brave men and skillful soldiers, who, with one exception, have observed the rules of civilized warfare, and have not mutilated their dead enemies." These Indians were encroached upon by white settlers on soil they believed to be their own, and when these encroachments became intolerable they were compelled, in their own estimation, to take up arms. Joseph now says that the greatest want of the Indians is a system of law by which controversies between Indians, and between Indians and white men, can be settled without appealing to physical force. He says that the want of law is the great source of disorder among Indians. They understand the operation of laws, and if there were any statutes the Indians would be perfectly content to place themselves in the hands of a proper tribunal, and would not take the righting of their wrongs into their own hands, or retaliate, as they now do, without the law. In dealing with such people it is the duty, and I think it will be the pleasure, of the department to see that the fostering hand of the government is extended toward them, and that it gives them not only lands on which to live and implements of agriculture, but also wholesome laws for their government.

THE MODOCS.

The Modocs, after their seven months' war in the year 1873, were removed to the Quapaw Reservation in the Indian Territory. They were located upon four thousand acres, purchased for them from the Shawnee reserve. On this land they have been industriously engaged in erecting cabins, fencing land, and cultivating the soil. By patient industry they have cut and hauled rails and made about five miles of good, substantial fence. The soil is somewhat clayey and not easily cultivated; it is not as fertile as the average land in the Indian Territory, and can only be made to yield a return by hard and well-directed labor. This little band of Indians, now numbering 112 men, women, and children, have toiled industriously, and have very nearly supported themselves by tilling the soil. They plow and sow and reap with the same persistent courage with which they fought. They have made great progress in civilization; very many speak English; all wear citizens' dress; they send their children to school; and they are anxious to become entirely self-supporting. They have accomplished more than could have been expected of them at the time of their settlement, and they are now ambitious to subdue more land and bring it under cultivation.

On a recent visit to their reservation, the Modocs expressed themselves anxious to have a school-house built where their settlement is, so that they would not be obliged to send their children ten to thirteen miles to school. They need more agricultural implements and teams to enable them to cultivate a larger portion of the area they occupy. The only trace of barbarism about these Indians remains in the hideous names by which they have become well known to the country. "Bogus Charley" is the chief of the tribe, and is a bright, intelligent man; he is, however, suffering from a pulmonary disease, which threatens to terminate his life at an early day.

There are remaining at the Klamath Agency in Oregon about as many Modocs as are located at the Quapaw Agency, and are all very desirous of having the remainder of the tribe brought to the Territory, that they may be together. An arrangement could probably be made to start these Western Modocs next spring, and with the expenditure of about five thousand dollars they could be brought to the Indian Territory and located with the remainder of the tribe to mutual advantage.

THE PONCAS.

At the time of the presentation of the last annual report of this office, the Ponca Indians were on the northern portion of the Quapaw Reservation, within three miles of Baxter Springs. They were not satisfied with the location, which, in several respects, was an unsuitable one for Indians beginning civilization. Many persons in the adjacent town did not scruple to sell them whisky, and although the Indians would return reeling into the camps it was impossible to ascertain who furnished the liquor.

The chiefs at once expressed the desire to find a more congenial location, in another part of the Territory, and, accompanied by an Indian inspector, made a careful examination of two locations and selected a tract on the west bank of the Arkansas River, which covers both banks of the Salt Fork at its junction with the Arkansas. The land is admirable in quality, well wooded and watered, and the location of the agency is the finest site for the purpose that could be chosen, on high table land, surrounded on three sides by water, and fringed by fine forest trees.

A warehouse has been completed and agency buildings and a school-house are in course of erection, and before winter sets in everything will be fairly advanced toward settlement. A steam saw-mill is in running order, which will furnish the Indians with lumber for their own building purposes.

The Poncas are becoming more reconciled to their new home, and now ask that they be compensated for the 96,000 acres they relinquished in Dakota, and that the title to their new homes be confirmed to them by the United States. A bill to effect this will be prepared for presentation to Congress at its next session, which should receive immediate action.

It should be remembered that their old reservation in Dakota was confirmed to the Poncas by solemn treaty and at the time of making the treaty they received promises of certain annuities in consideration of the cession to the United States of a large tract of land. That treaty, which is still in force, also recognized certain depredation claims which are still unadjusted. By a blunder in making the Sioux treaty of 1868, the 96,000 acres belonging to the Poncas were ceded to the Sioux. The negotiators had no right whatever to make the cession, and the bad feeling between the Sioux and the Poncas, which had existed for a long time, compelled the removal of the latter to the Indian Territory.

In this removal, I am sorry to be compelled to say, the Poncas were wronged, and restitution should be made as far as it is in the power of the government to do so. For the violation of their treaty no adequate return has yet been made. They gave up lands, houses, and agricultural implements. The houses and implements will be returned to them—their lands should be immediately paid for, and the title to their present location should be made secure. But the removal inflicted a far greater injury upon the Poncas, for which no reparation can be made—the loss by death of many of their number, caused by change of climate.

UMATILLA RESERVATION.

In addition to my remarks on the general subject of the consolidation of Indian agencies, I wish to invite special attention to the Umatilla Reservation in Northeastern Oregon. This reserve, inclosed by the Umatilla River and the Blue Mountains, contains 268,800 acres, and includes some of the finest grazing and agricultural land in the State. Article 10 of the treaty of 1859 with the Walla Walla, Cayuse, and Umatilla Indians provides that roads, highways, and railroads shall have right of way through their reservation whenever, in the opinion of the President, public interest requires the same. The rapid settling up of that portion of the State has surrounded the reservation with a white farming population, who have already run across it a telegraph-line and several roads. The route of the Blue Mountain and Columbia River Railroad line traverses the southern portion, and the junction of this road with a proposed branch line is to fall within reservation boundaries.

This valuable tract is occupied by only 1,000 Indians, who cultivate between two and three thousand acres, and make use of so much of the remainder of their lands as is required to furnish a range for their 22,000 head of stock.

For several years past the citizens of Oregon have made persistent effort to have these lands opened to settlement, and several bills to that effect have been introduced in Congress. This desire, which gains strength yearly, is well known to the Indians, and begets a feeling of restlessness and uncertainty decidedly unfavorable to their progress in civilization.

In view of the pressure on all sides for the removal of these tribes,

the increasing travel across the reservation, the expiration of their treaty before they have reached a point where government aid can be dispensed with, the expense of maintaining an agency for so small a number of Indians, and the fact that upon the Yakama Reservation a sufficient quantity of equally valuable land can be allotted them, I deem it expedient that the tribes occupying the Umatilla Reservation be removed to Yakama, and that the lands thus vacated be sold, the proceeds of such sale to be used to defray the expense of the removal, to make full reimbursement for all improvements relinquished, and to provide ample facilities for such civilizing work as will bring them to self-support.

THE INDIAN TERRITORY.

The Indian Territory embraces an area of 68,000 square miles, every foot of which is devoted to Indian settlement, and by virtue of the intercourse act and solemn treaties, is held sacred from the intrusion of white men. A considerable portion of the Territory is occupied by the civilized Indians embraced in the five following tribes: Cherokees, Choctaws, Chickasaws, Creeks, and Seminoles, some of whom have had peaceable possession of it for more than forty years. Other portions of the Territory are occupied by semi-civilized tribes; and still other portions, in the western part, are vacant and ready for the occupation of any tribes that may be removed thereto.

This Territory is below the parallel of the great traveled routes between the Atlantic and Pacific Oceans, and fortunately it is not in the way of extending civilization westward. There is, however, a scheme on foot to deprive the Indians of the immunity hitherto enjoyed by them, and speculators are now agitating the erection of this unorganized Territory into a Territory of the United States under various specious pleas, mainly intended to act as an entering-wedge to open it to white settlement. The experience of more than forty years admonishes us that it is best to let it remain in the future, as it has been in the past, a home for the Indian, where he may live and cultivate the soil undisturbed by white men. The Indian tribes located there have prospered well and are still prospering under the existing condition of things; and in that Territory there is ample room for all the southern tribes of Indians now in Colorado, Arizona, and New Mexico. To erect a Territorial government in it would be to entitle the citizens of other States to reside within its limits. Already a railroad has been chartered and endowed with land grants which they may take possession of "when the Indian title becomes extinct," thus looking to the spoliation of the Indian and a profitable administration of his estate.

The purpose for which this territory was set apart by solemn treaty should operate to hold it forever sacred from intrusion, and the Indian should be left to the undisputed possession of this small area of his once unbounded heritage.

In this connection it is proper to mention, as indicating the increasing prosperity of the civilized tribes, the "Indian international fair" which held its fourth annual exhibition at Muskogee during the first week in October. The object of this fair was not only to stimulate the people to greater exertions in their various pursuits, but by bringing the members of many different tribes together once a year in friendly rivalry, to promote kindly feelings and to lead to a union of interests. The display at the fair was such as would compare quite favorably with the average county fair in the States. It was attended by many hundreds of Indians, representing fifteen different tribes. There was a remarkably fine

display of cattle bred in the Territory, including some thoroughbreds. Cotton, in its various stages, from the partly-matured plant to the bale ready for market, was entered by many competitors. This crop is well adapted to the soil, and a ready market is found for it at good prices. The Creeks alone will export cotton to the value of \$40,000 this year. Corn, the staple commodity of the country, was shown in many varieties of excellent quality. Sweet potatoes and yams were very fine, and there was a handsome display of apples.

PIMA AND MARICOPA AND PAPAGO INDIANS.

The Indians comprising these tribes in the Territory of Arizona number in the aggregate over ten thousand. They are a worthy, industrious class of Indians, and self-supporting. The government is at no expense in providing them with rations; they have always been friendly to the whites, and seldom guilty of committing depredations; and, unlike most of the tribes around them, they have farms, and live by cultivating the soil. They are under the necessity of irrigating their lands in order to make them productive, and by their thrift and industry they have achieved, considering their means, wonderful results. The Pimas and Maricopas have been dependent upon the Gila River for water to irrigate their farms, and for the past year or more there has been a great scarcity of water, owing to the drouths that have prevailed in that section of the country, and the further facts that mines have been opened upon the Upper Gila, and that for several miles above their reservation numbers of Americans and Mexicans have made settlements within the past few years, and used the water of this river, or, rather, creek, in their mining operations and to irrigate their lands, thus almost wholly cutting off the supply from the Indian farms.

The Indians were therefore driven to the necessity of seeking other lands to cultivate, or to obtain employment elsewhere to save themselves and their families from starvation. Large numbers of them were compelled to cultivate lands on Salt River and in other portions of the Territory. This caused considerable excitement on the part of citizens, and the Territorial legislature memorialized Congress at its last session, requesting that measures be adopted to compel these Indians to remove to their reservation and remain there. It was therefore deemed advisable to have a thorough investigation made of their condition and necessities, with a view to the adoption of some permanent measures of relief.

Inspector Watkins was instructed early in March last to make the required examination and such recommendations as to their condition as in his opinion might be advisable. He reported that, to comply with the demands of the citizens and the Territorial legislature, and insist upon a strict enforcement of the policy of the government by confining these Indians to their reservations, would, under existing circumstances, be an act of inhumanity, unless they were furnished regularly with rations, which would be very expensive and poor economy; besides, the office had no means at its disposal with which to purchase such supplies.

Until within the last two years these Indians have been averse to going to the Indian Territory; but the inspector and the agent both report that they are anxious to better their condition, and will now readily consent to the change. The agent, in April last, held a council with the Indians with a view to their settlement in the Indian Territory, and subsequently asked authority to take a delegation there for the purpose of selecting a home for the Pimas and Maricopas, and such of the Papagos as desired to join them; but there were no funds at the disposal of the office to meet the expense of such a visit, and the agent

was informed that Congress would be asked to make the necessary appropriation for that purpose. Inspector Watkins, after a thorough investigation of the condition of these bands, is of the opinion that measures should be adopted to remove them to the Indian Territory, and that an appropriation of \$25,000 should be asked for the purpose, \$5,000 of which should be expended in agricultural implements for their use after their arrival there. He recommends that a thousand or more of the leading members of the bands be taken to the Territory and placed upon a reservation, believing that the remainder will go there of their own accord; and by their industrious and thrifty habits they will become rivals of the most advanced Indians in civilization.

These recommendations are in the right direction, and should be acted on without delay.

REMOVALS FROM CIMARRON AND ABIQUIU.

By the Indian appropriation act of March 3, 1877, provision was made for the establishment of an agency on the southern part of the reservation in Colorado. This action was in tardy compliance with article 4 of the Brunot agreement of 1873, viz :

The United States agree, so soon as the President may deem it necessary or expedient, to erect proper buildings and establish an agency for the Weeminuche, Muache, and Capote bands of Ute Indians at some suitable point, to be hereafter selected, on the southern part of the reservation.

The Utes referred to are those who, with bands of Jicarilla Apaches, have for several years past roamed through Northern New Mexico, reporting at Cimarron and Abiquiu at irregular intervals for goods and supplies. By acts of May 29 and June 20, 1878, it was provided that these Utes and Apaches be removed without delay—the former to the new Southern Ute Agency and the latter to the Mescalero Reservation in New Mexico.

At Abiquiu the issue of rations to the Utes was discontinued on the 10th of April, and the Indians notified that thereafter they would receive supplies only at the new agency. They accordingly removed themselves thither without trouble or expense to the government.

The removal of the Cimarron Utes was delayed several weeks waiting for a detail of soldiers to assist. But the troops being in demand elsewhere, the Indians were finally escorted to Colorado by Inspector Watkins and Agent Thomas, leaving Cimarron July 18, at which date the agency was abolished, and arriving at the new agency thirty days later.

At the time the Utes left Arizona the Apaches also agreed to leave for Mescalero, but only thirty-two kept their promise; they were delivered to Agent Godfroy on the 16th of August. The remainder joined the other Jicarillas at Abiquiu. All of them refuse to go to Mescalero on account of the state of anarchy existing in that part of New Mexico—the result of contentions between two factions in Lincoln County. Inasmuch as the agency clerk and several others have been killed and the Indians there attacked and robbed by white men, the objections of the Jicarilla Apaches to making that their home are so reasonable, that it has not been deemed expedient to try to force them to go there. Such an attempt, to be successful, must be postponed till next spring, and by that time their consent can probably be gained to remove to the Indian Territory, a location which they decidedly prefer to Mescalero.

Unfortunately the office was prohibited by law from issuing supplies to the Cimarron Apaches after the 20th of July last at any other place than the Mescalero Reservation, which leaves between three and four hundred Apaches to subsist themselves by hunting—or depredating.

THE UTE COMMISSION.

The Ute commission was originally composed of the following gentlemen: Brigadier-General Hatch, of the United States Army; Mr. N. C. McFarland, of Kansas, and Mr. William Stickney, of Washington, D. C. Mr. Stickney, however, having been taken ill, Hon. Lot M. Morrill, of Maine, was appointed in his place. This commission was appointed by the Secretary of the Interior under act of Congress of May 3, 1878.

The commission, after a counsel held by them with the Indians, in which the latter expressed themselves fully and freely, came to the conclusion that it would be impossible for them to obtain the consent of the Indians to a removal to the White River country; and there is no doubt that the conclusion arrived at was right, whatever may have been their method of reasoning. The situation of the White River Agency is the worst possible in all respects, unless it should be the intention to keep the Indians as national paupers. It is accessible for teaming only two months in the year; the soil is not good; and why the location was chosen at all for an Indian agency is a profound mystery.

The Ute Indians of Colorado are divided into three agencies; their reservations cover nearly 12,000,000 of acres, and fully one-third of the best arable land in the State; and it is situated in the heart of one of the richest mining regions in the United States. The mining population naturally want the arable land to raise food for their support; and as the white population is rapidly augmenting, their encroachments upon the Indians will be constantly on the increase; besides, their lands, if put in the market, will readily sell at a fair price. These remarks have reference mainly to the two southern agencies. The location of the Northern Utes is not desirable, unless the land shall be found to contain minerals. But all the Ute Indians should be removed at once to the Indian Territory, where there is fertile soil and abundance of wood and water, and where there need be no white encroachments.

The request of the Utes to send a delegation to Washington for conference in regard to their affairs has been granted by the President. In the mean time an arrangement has been made by the commission with the Muache, Capote, and Weeminuche bands of Utes, by which they relinquish all right to the present Ute reserve in Colorado, especially to the portion occupied by them south of 38 degrees and 10 minutes, and agree to go to a reservation on the headwaters of the Chama, Navajo, San Juan, and Piedra Rivers—the precise boundaries to be hereafter defined by the President. They agree to go as soon as an agency shall be located and agency buildings erected in the spring and summer of 1879.

In this connection, I would say that it is a matter of prime importance to gather all the southern Indians into the Indian Territory, as the climate is suitable to them, while it is dangerous in its effects on northern Indians, as I had occasion to show in my last annual report.

INDIAN POLICE.

By act of May 27, passed at the last session of Congress, provision was made for the organization at the various agencies of a system of Indian police, the aggregate force not to exceed 50 officers and 430 privates.

Too short a time has elapsed to perfect or thoroughly test the workings of the system, but the results of the experiment at the thirty agencies in which it has been tried are entirely satisfactory, and com-

mend it as an effective instrument of civilization. A simple code of rules for the guidance of the service has been prepared, and a plain, inexpensive uniform adopted.

An obstacle to the fullest success of the system lies in the limited remuneration which the law allows for such service, being only \$5 per month for privates and \$8 for officers. This sum is sufficient only among tribes who receive regular issues of rations. Among Indians who have learned to depend mainly on their own labor for subsistence it is looked upon as a poor exchange for the support which can be realized by working on their farms or by laboring for neighboring whites. The department should be allowed discretionary power to vary police salaries according to the condition and needs of tribes who have outgrown the ration system.

The police organization should be followed up by the adoption of a code of laws for Indians, and peace and good order among them will result.

TELEGRAPHIC COMMUNICATION WITH INDIAN AGENCIES.

Very many of our Indian agencies are remote from telegraphic communication. For example, the Spotted Tail Agency is 88 miles from a telegraph-wire; the Red Cloud Agency is 18 miles from a telegraph office; the Osage Agency is 60 miles distant; the Pawnee Agency is more than 100 miles distant, and so with many others. The mail from Coffeyville, Kans., the terminus of the telegraph-line to the Osage Agency, is carried but once a week; consequently, if a message is not sent by a special messenger, at a very considerable cost, it must lie over for the weekly mail. This renders the telegraphic service, so far as that agency is concerned, very nearly useless.

The distance of the Cheyenne and Arapaho Agency from telegraphic communication was a great obstacle in the way of a prompt suppression of the recent Cheyenne outbreak. The time required for communication with Washington was sufficient to enable the Indians to get out of the way of an immediate pursuit; and the cost of this outbreak alone to the government is more than sufficient to make a telegraphic connection with every Indian agency. It would be a wise economy to have telegraphic communication opened at once with all the larger Indian agencies. In most cases the Indians would cut and deliver the necessary poles, and the expense of the wire and setting the poles would not involve a large outlay.

NECESSITY FOR A WAREHOUSE IN THE WEST.

This bureau should have a large warehouse located at some convenient spot on the Missouri River, where a collection of wagons, harness, and agricultural implements of all kinds should be kept constantly in store, in order that when any of these articles are needed at an agency the want could be promptly supplied.

As it is the policy of the office to discourage open market purchases, and as agricultural implements bought in the open market in the vicinity of any of the agencies are very expensive, and the time required for the filling of an order and the delivery of the article is often an obstacle in the way of its use, by having a depot for such articles there would be greater facility in conducting the agricultural work for the support of the Indians.

INDIANS AT HAMPTON.

The Cheyennes, Kiowas, and Arapahoes who had been held as prisoners of war at St. Augustine, Fla., for the past three years were released in May last and brought back by the way of Norfolk, and the adults (40 in number) were sent to their home in the Indian Territory. Capt. R. H. Pratt, U. S. A., who had been detailed as their agent, interested himself with benevolent people at the North and succeeded in obtaining support sufficient to educate 18 of these youths at Hampton Normal Institute, Hampton, Va. Four were sent to Syracuse, N. Y., to be educated under Bishop Huntington's care.

On September 2, 1878, Captain Pratt was requested by this bureau to go to Dakota and secure 50 more scholars from among the Indian youth of the various tribes in Dakota. As the result he obtained from the Yankton Agency three girls and nine boys, from the Crow Creek Agency one girl and five boys, from the Lower Brulé Agency six boys, from the Fort Berthold Agency four girls and nine boys, from the Standing Rock Agency one girl and three boys, and from the Cheyenne River Agency nine boys; and he was directed, in company with his wife, to take these children to Hampton. They arrived on the 5th day of November, and already give promise that the opportunity thus afforded them will not be lost.

In his report, which will be found on page 173, Captain Pratt states that he could with ease have secured three thousand Indian children for the school, so anxious are the parents to have their children educated. One Indian woman would not let her daughter go alone, and she therefore accompanied her, and remains at Hampton to watch over her.

The anxiety displayed by the Indians to have their children educated suggests the establishment of industrial schools of like character more convenient to the Indian population of the country, where their education might be carried forward on a more extensive scale.

CHANGES AMONG AGENCIES.

During the year several important changes in respect to agencies have taken place.

A reduction of two has been effected by the consolidation of the Winnebago and Omaha Agencies in Nebraska, and the Wichita and Kiowa and Comanche Agencies in the Indian Territory. It is intended to consolidate the Lemhi and Fort Hall Agencies in Idaho by removing to Fort Hall the 900 Indians who are unfavorably located at Lemhi.

The Union Agency was abolished by law on the 30th of June last. The interests of the service require that it be restored. The bureau needs to have some officer on the ground who can investigate and furnish information in regard to the various questions arising among the different tribes in the Indian Territory which come before this office for decision.

The Fort Belknap Agency has been re-established. It was discontinued in 1876, and the Gros Ventres and Assinaboines ordered to report at Fort Peck. The Gros Ventres, however, have steadily refused to join their old enemies the Yanktonnais at that point, and they, with a portion of the Assinaboines, are again allowed to receive supplies at Fort Belknap. That agency also includes the River Crows, who make their home in that vicinity, and decline all invitations of the Mountain Crows to settle with them on their reservation south of the Yellowstone.

The Mission and Hoopa Valley Agencies, in California, and the Mo-

quis Pueblo Agency, in New Mexico, have also been re-established. Their discontinuance was caused by failure of Congress to appropriate for salaries of agents.

An agency for the Western Shoshones, in Nevada, has been created. A good reservation in Duck Valley, on both sides of the boundary line between Nevada and Idaho, was last year set apart for their benefit by executive order, the first opportunity ever afforded them for making permanent homes. Hitherto they have been homeless wanderers through Nevada, without incentive to industry, although some of the most enterprising have cultivated lands owned by whites. If they live up to their protestations, that all they want is a fair chance to support themselves, they will soon be able to report progress in civilization. Houses, schools, farming implements, seeds, and partial subsistence until crops can be raised, should be furnished by the government.

BOARD OF INDIAN COMMISSIONERS.

This organization, composed of gentlemen of high standing and large business experience, renders valuable aid to the government by its constant oversight of the business of the bureau. All bids received for furnishing supplies and annuity goods undergo careful examination by the board, and no contracts are awarded without first receiving its approval. At the New York warehouse, the board employs its own clerks, who keep a complete and independent record of all goods received, inspected, and shipped, and have access to all books and papers kept by the department clerks. This double supervision affords the best possible protection against fraud, as well as against loose and irregular methods of doing business.

The members of the board also acquire a practical knowledge of the wants of Indians by visiting the various agencies in person; at the same time they examine the supplies on hand, and are thus enabled to certify positively that the articles purchased for Indians are received by them.

Such close and extensive supervision obliges a large majority of the commissioners to devote much valuable time to the Indian service, and when it is remembered that these services are rendered by them gratuitously, their opinions on questions of Indian management should be received with full confidence.

I have the honor to be, sir, very respectfully, your obedient servant,

E. A. HAYT,
Commissioner.

The Hon. SECRETARY OF THE INTERIOR.

PAPERS

ACCOMPANYING THE

REPORT OF THE COMMISSIONER OF INDIAN AFFAIRS.

1878.

BY

REPORT OF THE COMMISSIONER OF INDIAN AFFAIRS

1878

COMMISSION TO APPRAISE CHEROKEE LANDS IN INDIAN TERRITORY.

A commission, consisting of Thomas P. Kennard, of Lincoln, Nebr., Ebenezer H. Topping, of Louisburgh, Kans., and Thomas E. Smith, of Paola, Kans., was appointed by the Secretary of the Interior on the 30th of January, 1877, to appraise the Cherokee lands in the Indian Territory, lying west of the 96th meridian of west longitude, and west of the land of the Osages ceded to the United States by the Cherokee Indians under their treaty of July 19, 1866, for the settlement of friendly Indians, as provided in the fifth section of the Indian appropriation act of May 29, 1872. (17 Stats., p. 190.)

Instructions were issued to this commission on the 3d of March, 1877, to appraise by townships all the land lying east of the Indian meridian, and, if desirable, some few townships west of said meridian, but that much, if not all, of the country west of the Abilene cattle-trail and stage-road from Caldwell, Kans., to the forks of Turkey Creek and Cimarron River might be appraised in large areas at one price per acre. This commission remained in the field until July, 1877, when it was compelled, by reason of the excessive heat and drought, to adjourn till September 15, 1877. In the mean time Mr. Kennard resigned, and Mr. William N. Wilkerson, of West Line, Mo., was appointed by the Secretary, under date of September 8, 1877, to fill the vacancy, and instructed to join the commission at Wichita, Kans., on the 15th of September, for the completion of the field-work.

The commission reassembled at Wichita, Kans., on the 17th day of September, 1877, to renew their labors in the field. They completed their work, returning to Wichita on the 9th day of November, and on the 12th day of December following submitted their report to this office, which will be found herewith on page 162. From that report it appears that they appraised 574,576.05 acres at a total valuation of \$2,711,923.40 $\frac{3}{4}$, being an average of 41 $\frac{1}{4}$ cents per acre.

In this appraisement are included 230,014.04 acres which were set apart for the Pawnee Indians; they were appraised at a total value of \$137,781.44 $\frac{1}{4}$, being about an average of 59 $\frac{4}{5}$ cents per acre.

The fifth section of the act of May 29, 1872, authorizing the appraisement of these lands, required that the appraisement, when completed, should be reported to Congress. This was done by department letter of May 9, 1878, to the chairman of the Senate Committee on Indian Affairs, which was referred to the Committee on Indian Affairs May 15, 1878, and ordered to be printed, since which time no action appears to have been taken in the matter.

COMMISSION TO APPRAISE KANSAS INDIAN LANDS.

Under the provisions of the act of Congress approved July 5, 1876 (19 Stat., 74), the Secretary of the Interior was authorized to appoint a commission of three persons to reappraise all of the unsold lands of the Kansas or Kaw Indians, in the State of Kansas, if he should be satisfied that said lands were appraised at more than their present cash value

by the former commission, and if the Indians should give their assent to such reappraisement.

The Indians, on the 31st of May, 1877, agreed to the reappraisement of their lands upon condition that the three appraisers should be nominated respectively by the Commissioner of Indian Affairs, the superintendent of the Central superintendency, and the agent for the Osages. In accordance with such nominations United States Indian Agents M. H. Newlin and H. W. Jones, and Thomas S. Huffaker, of Kansas, were appointed members of the commission.

Pursuant to instructions from the Indian Office dated November 30, 1877, they proceeded to Kansas and entered upon their duties. Their work has not yet been completed.

STATEMENT
SHOWING
THE METHODS OF CONDUCTING BUSINESS IN THE OFFICE OF
INDIAN AFFAIRS.

OFFICERS AND EMPLOYÉS OF THE INDIAN BUREAU FOR THE FISCAL
YEAR ENDING JUNE 30, 1879.

Commissioner.
Chief clerk.
Five chiefs of division.
Stenographer.
Forty clerks and copyists.
Two assistant messengers.
One laborer.

The business of the Indian Bureau is carried on in five divisions, as follows, viz:

THE FINANCE DIVISION.
THE ACCOUNTS DIVISION.
THE LAND DIVISION.
THE CIVILIZATION AND EDUCATIONAL DIVISION.
THE FILES AND RECORDS DIVISION.

The chief clerk has supervision over the whole, under the administration of a Commissioner of Indian Affairs.

The following statements show in detail the character and extent of the business which comes before the Indian Bureau, and the manner in which it is transacted in each division.

FINANCE DIVISION.

This division has charge of all financial affairs pertaining to the Indian service, acts upon all questions relating to contracts for supplies and annuity goods for Indians, and the transportation thereof; settles all special accounts for goods, supplies, &c., and makes payment for the same; remits funds to the disbursing officers of the bureau, and conducts all correspondence relating to goods, supplies, &c., and the financial affairs generally of the Indian Office.

In treating of the manner and methods of conducting the "financial" branch of the bureau, it is deemed proper and expedient, both for convenience and in order that the matters hereinafter set forth may be clearly and thoroughly understood, to make the following classification, viz:

- I. Purchase of supplies, &c.
- II. Settlement of claims or accounts arising under contracts or by open-market transactions.
- III. Remittances to disbursing officers of the bureau.
- IV. Records of appropriations and expenditures, contracts, &c.

PURCHASE OF SUPPLEIS, ETC.

Prior to the act of Congress approved March 3, 1875, which provided that thereafter no purchases of goods, supplies, &c., the cost of which should exceed one thousand

dollars, to be paid for from moneys appropriated by said act, should be made except after previous advertisement and contract therefor, large discretion was exercised by the bureau in its purchases for the Indian service. Little regard, in this respect, was paid to then existing laws, and large open-market purchases were frequently made under the "exigency" clause, which did not limit transactions of that character to any specific sum.

Subsequent to the date of said act, the method of purchasing goods, supplies, &c., for Indians has more nearly conformed to the law, but not until the present year has it been fully complied with. At the annual letting in June last contracts were made as far as practicable for all goods and supplies which would be needed during the current fiscal year.

By the act of August 15, 1876 (19 Stats., p. 200, sec. 6), the open-market limit was increased to two thousand dollars, in the case of an emergency, and by the act of March 3, 1877 (19 Stats., p. 293, sec. 2), this discretion was further extended so as to permit of purchases in open market to an amount not exceeding five hundred dollars, and in the case of an exigency to an amount not in excess of three thousand dollars. This last-named law was re-enacted by the act of May 27, 1878, and the bureau is conducting its transactions in the matter of purchases entirely in accordance therewith, only in extreme cases availing itself of the three-thousand-dollar limit referred to.

The following is the method of letting contracts for the Indian service :

After due advertisement, upon authority previously obtained from the honorable the Secretary of the Interior, as required by the act of July 15, 1870 (section 3828, Revised Statutes), inviting proposals to furnish annuity goods, supplies, &c., the quantities to be furnished being based upon estimates previously submitted by the various agents of the Indian service, the needs of the Indians, and existing treaty obligations, and the amount of money provided by Congress available for the purpose, sealed bids, in all cases when practicable accompanied by samples of the articles proposed to be furnished, are received and deposited publicly, in the presence of the bidder or other person presenting it, in a box locked and sealed, made especially for the purpose, until the time specified for opening of bids. At the proper time said box is opened in the presence of the Commissioner of Indian Affairs, the purchasing committee of the Board of Indian Commissioners, representatives of the Interior Department (these latter being designated by the honorable the Secretary of the Interior), and the usual large assemblage of interested persons who attend the annual letting of contracts for the Indian service. The bids are then taken from said box, one at a time, and read publicly by the Commissioner or members of the Board of Indian Commissioners; thence they are passed to clerks to be numbered, recorded, and abstracted, after which the officers named, with the abstracts of bids and the samples before them (said samples being divested of all marks that could reveal ownership, and having already been subjected to the scrutiny and examination of reputable and competent inspectors, experts selected for their technical knowledge of the various kinds of goods offered, appointed for the purpose *after* the bids are opened,) make the awards of contracts.

After the awards have been made, contracts are prepared for execution by the successful bidders, which contracts, after receiving the signature of the Commissioner of Indian Affairs, with the necessary bonds for the faithful performance thereof, are forwarded to the executive committee of the Board of Indian Commissioners for their action thereon, as required by law; whence they are passed to the Secretary of the Interior for his approval; thence they are returned to this office for record, after which they are forwarded to the office of the Second Comptroller of the Treasury for file, copies thereof being transmitted to the Second Auditor of the Treasury for his information, as required by the act of March 3, 1875 (18 Statutes, p. 450, sec. 7), and to the several agents of this bureau, to whom the supplies covered thereby are to be shipped.

Immediately after the approval of the contract by the proper authorities, and the execution of a bond with proper sureties, shipments of goods, supplies, &c., are ordered. Such articles as flour, corn, wheat, sugar, coffee, &c., which are purchased in large quantities, and usually at points remote from the place of making contracts, are inspected before shipment by competent persons appointed for that purpose, by comparison with the samples upon which the contracts were awarded; and in all cases a strict compliance with the terms of the contract as to the quality, &c., is required of contractors. In the case of annuity goods, clothing, blankets, and other articles, which are in most cases deliverable by contractors in New York City, the contractors are required to deliver said articles at the warehouse of this bureau in that city, where the said articles are inspected by reputable experts appointed for that duty, by comparison with the samples upon which the contracts were based, and the quantities are carefully compared with the invoices; thence the said goods are turned over to bonded transporters of the bureau for delivery at their several points of destination.

To insure greater security in the delivery at the agencies of the goods purchased and shipped, each package is stamped by the inspector with his name, and is given a number which must correspond with a number on the invoice of the articles furnished; a copy of this invoice is forwarded by the first mail after shipment of the goods to

the agent for whom they are intended, in order that he may compare quantities, &c., of articles received with the articles invoiced.

These arrangements in detail in the matter of awarding contracts, and the inspection and shipment of goods received thereunder, serve to protect the department from both fraud and error. Great care has been taken to insure the delivery at the several agencies of the goods intended for them, and it is certain that in future exchanges of goods or supplies while *en route* will not occur.

SETTLEMENT OF CLAIMS OR ACCOUNTS.

Great improvement has been effected within the past few years in the manner of the settlement and payment of accounts for goods, supplies, services, &c. Formerly all payments of this class of accounts were made by the superintendents and Indian agents, except for the goods, &c., purchased at the annual letting of contracts, which covered only a portion of the yearly purchases. About the commencement of the fiscal year 1877 (July 1, 1876), the system of making payment through the office for all goods, &c., was adopted, excepting in isolated cases where the interests of the service were better subserved by direct payment through its agents. Additional checks and safeguards were originated and carried into effect in the matter of the inspection of and receiving and receipting for supplies, until now it is impossible, without detection, for improper or false payments to be made.

In the payment for supplies furnished under contracts, excepting for articles deliverable at agencies by contractors, the contractor must furnish invoices in duplicate of the articles delivered, to which must be attached the certificate of the bureau inspector to the effect that the articles enumerated thereon (describing the packages by numbers and marks) are equal in quality to the samples upon which the contract was awarded, and he must also furnish the receipt of the transportation contractor for the packages covered by said invoices, describing the same by numbers and weight. Upon presentation of these invoices the contractor's account is adjusted by the Indian Office, the quantities and prices of articles being compared by the examining clerk with the record of the original contract; if found correct, the same is "jacketed" and submitted to the Commissioner for his signature, after receiving which the account is recorded in the "Special Accounts" record; thence it is forwarded to the executive committee of the Board of Indian Commissioners (in whose office is a record of all contracts) for examination and the necessary action required of them by law, with a view to their approval or otherwise; thence the said account is transmitted by said committee to the Secretary of the Interior for his examination and action thereon, after which the same is returned to this office and a record made on the "Special Accounts" book, before referred to, of the action of the executive committee and the Secretary of the Interior. The account is then passed by this office to the Second Auditor of the Treasury for adjustment, by whom the same, with his findings thereon, is forwarded to the Second Comptroller of the Treasury for examination, as required by section 273 of the Revised Statutes, who certifies the balance due, and upon whose certificate a requisition on the Secretary of the Interior for said balance is issued by this office; who, in turn, makes requisition on the Secretary of the Treasury for the amount of the said account.

In the case of deliveries by contractors at agencies other forms are used, as follows, viz:

"Receipt" of agent.

"Certificate" of inspector.

Weigher's "return."

Upon which, properly filled out and signed by the receiving, inspecting, and weighing officers, payments are made as hereinbefore described.

Payments for articles purchased in "open market" by agents of the bureau are made after the manner before set forth (all accounts of whatever character undergoing the same process of settlement), upon certified vouchers (duplicates) accompanied by duplicate invoices and transporter's receipts, where articles purchased are not delivered by the seller at the agency.

By a rule of the department, agents of the bureau are required to obtain authority from the head of the department before purchasing any supplies required for the Indian service, except in the case of an absolute emergency or exigency, when necessary articles may be purchased in *small quantities*; but in such cases a good and sufficient explanation (of which this office is the judge) is required to accompany the vouchers presented for payment, fully setting forth the special exigency that made the purchase necessary before obtaining authority.

REMITTANCES TO DISBURSING OFFICERS.

Advances of public funds are made only to bonded officers of the bureau and officers of the Army detailed for duty under the Indian Department, who are required to sub-

mit quarterly estimates of the sums that will be necessary to conduct the service at the several agencies within the period covered by their estimates. Funds for the payment of money annuities arising under treaty stipulations are remitted at the commencement of the fiscal year, except in the case of semi-annual payments, when the funds required to make the same are forwarded in the fall and spring of the year. In all other cases the sums advanced are limited to the amount actually required to pay the agents and employes' salaries, said amounts being based upon the sum set apart for that purpose at the several agencies, by the Secretary of the Interior, in accordance with section 5 of the act of March 3, 1875 (Statutes, 18, p. 449), a small amount necessary to pay traveling expenses of the agents and contingent expenses of their agencies, and, in some cases, the amount necessary to pay for supplies in small quantities, the purchase of which by the agents has already been authorized by the department.

RECORDS OF APPROPRIATIONS AND DISBURSEMENTS, CONTRACTS, ETC.

The system of accounting for moneys appropriated by Congress for the Indian Department is very rigid and complete. The record of appropriations under existing treaty obligations with Indians requires the use of nine large ledgers, in which are kept full and complete accounts of all receipts and disbursements of public funds appropriated for the various tribes of Indians. These accounts include not only a record of moneys appropriated by Congress, but also of receipts and disbursements arising from interest collected on bonds held by the government for the benefit of Indian tribes, and from the sale of Indian lands. Copies of all requisitions issued for funds are kept in books prepared especially for that purpose, which show the amount drawn from the Treasury, to whom paid, and the character of the supplies furnished or service performed; or, if advances to disbursing officers, to whom and for what purpose.

Besides the foregoing, the following records are kept in the Finance Division of the Indian Bureau: Of all contracts for the Indian service, whether for supplies, services, or otherwise; of all property, whether purchased under contract or in open market, when payment therefor is made through this office and the Treasury Department; of all accounts paid through the office and the Treasury; record, in detail, of all advances to disbursing officers, showing the appropriation from and the objects for which the funds are remitted, together with the amounts thereof; register of letters received for action by the division, and of all correspondence emanating from it.

The manner of accounting by disbursing officers for funds advanced, and by agents for property purchased by or shipped and transferred to them, will be found under the title-head of "Accounts," wherein is described in detail the methods of payments for services rendered and articles purchased, and of issuing and disposing of goods, supplies, &c.

DIVISION OF ACCOUNTS.

This division has charge of all cash and property accounts of Indian agents and other disbursing officers of the Indian Bureau, and examines and audits the same preparatory to their final settlement by the accounting officers of the Treasury; determines all questions relative to the quantities and distribution of supplies, and has supervision over all employes at the agencies, including Indian police.

The plan or system pursued to secure a proper accounting from the agents and officers above alluded to, for public funds and property intrusted to their care, is set forth in detail as follows:

I.—THE CASH ACCOUNTS.

No funds are placed to the credit of any agent or disbursing officer of this bureau (except in the case of Army officers acting as agents) until they have filed a satisfactory bond, ample in amount, and secured on unincumbered real estate in value at least double the amount of the bond. When funds are remitted to an agent, he is furnished with a tabular statement showing the several heads of appropriation to which the funds belong, and instructed as to the purposes to which they may be applied. An account is then opened with him in this office, where he is charged with all funds placed to his credit, under each appropriation, and credited with the several amounts expended, as shown by his accounts, when examined and adjusted by this office.

By the tenth section of the act of March 3, 1875 (18 Sts., p. 450), each agent is required to keep a book of itemized receipts and expenditures, and a record of all contracts at each agency, open for inspection at all times, to those properly authorized to inspect the same, and to forward a transcript thereof to the office of the Commissioner of Indian Affairs immediately at the close of each quarter. The records to be kept in this book have been extended by official order to include not only cash transactions, as contemplated in the law, but the receipts, issues, and expenditures of property also,

the transcript of which enables the office to see at a glance what has been done during the past quarter, and when the several transactions took place. When the agent's regular quarterly accounts are received, if they do not correspond with the detailed statement purporting to have been taken from the book above referred to, it is a proper subject for inquiry and explanation.

The quarterly cash account of an Indian agent consists of an account current, upon which he takes up on the credit side all moneys received from the government or from other sources, and enters on the debit side the aggregates of expenditure as shown by the abstracts of disbursement. These abstracts show the funds on hand and received during the quarter, under each head of appropriation, and the several vouchers of his account are entered thereon in numerical order, and the amount of the voucher carried to the column of appropriation under which it is properly disbursed. The totals of the disbursements under the various heads deducted from the corresponding totals on hand and received, leave the several balances applicable to the succeeding quarter.

In the examination of a cash-account, the "examiner" first ascertains that the agent has taken up thereon all the moneys placed to his credit as shown by the books of this office.

There are two classes of expenditures by agents, viz, payments to employés and for purchases for use of the agency or Indians. In neither of these cases is the agent allowed credit for any but authorized disbursements; no payments to employés for regular or temporary service being allowed, except to those authorized by the Secretary of the Interior and properly reported on "Reports of employés," in accordance with section 5 of the act of March 3, 1875 (Stat., vol. 18, p. 449), and approved by this office; no expenditures for purchases being allowed unless said purchases have been authorized by the department. This authority must be previously obtained, except in cases of purchases made under special exigency, a full report of which, clearly establishing the fact that a *bona-fide* emergency existed, must be submitted to the department and approved thereby, before they can be allowed in the agent's accounts. It is not sufficient authority for any expenditure that funds were remitted to an agent for certain general purposes, but he is required to submit itemized estimates of all purchases desired, and to obtain specific approval of the same. It will be seen that no expenditure, no matter of what nature or of how small an amount, that is unauthorized can fail of detection and suspension or disallowance, for it is required that each voucher shall state the date of authority, which statement is always verified in this office by the "examiner," so that it is impossible for a single dollar to be expended by the agent without the sanction of the department.

II.—THE PROPERTY-ACCOUNTS.

Purchases once made, the agents are held to an equally strict accountability for the property received, whether purchased by themselves or by this office, and they are required to render a "Return of property," showing thereon every article received, and the disposition made of the same. This report shows only the aggregate of receipts and disbursements, and, for convenience in examining, is accompanied by several abstracts showing the transactions in detail, as follows:

Abstract A.

This abstract shows all articles purchased and paid for by the agent, and for which he has issued certified vouchers, to be paid by this office, and is easily verified, so far as the purchases are paid for by him, by the vouchers in his cash-account above referred to; and those for which certified vouchers were issued, by the vouchers, which would be held in this office unsettled, and no payment made thereon, until the purchases had been taken up by him.

Abstract B.

Upon this abstract appear all articles purchased and paid for by this office on certified vouchers or receipts issued by the agent, and which do not appear in the agent's cash-account. This applies to annuity-goods, subsistence and other supplies purchased in open market or contracted for by the office. This abstract is verified by the records of this office, a book being kept in which is entered all property purchased by the office and consigned to each agency, and, as in the case of Abstract A, all property delivered to the agent, and not taken up by him, is charged against him in the adjustment of his account.

Abstract C.

This abstract is an exhibit of all articles manufactured or produced in any manner at the agency, all increase of agency stock, and, in short, any property that may have come into the agent's hands from any outside source during the quarter. Not only is the agent required to certify to the correctness of this report, but it must also be sustained by the certificate of each and every employé, that it is a true exhibit of the receipts so far as relates to his branch of the service.

Abstract D.

This abstract shows all property issued to Indians. The law requires that issues shall be made to heads of families and not to tribes or bands, and the office requires the receipt of each head of family, or individual Indian not the head of a family, to be taken for the articles issued to them; and the issues, and the signing of the receipts to be certified to by the interpreter and, at least, two disinterested witnesses. In order to carry out this plan, three forms of vouchers are furnished agents, numbered 1, 2, and 3; any one or all of them may be used at an agency as circumstances require. These vouchers show in detail exactly what is issued to, and received by, each head of family or individual Indian. Voucher 1 is for occasional issues of annuity goods and articles furnished the Indian service, and is used principally at those agencies where no regular issues are made, but supplies, &c., are given to aged, sick, and helpless Indians. Voucher 2 is used at those agencies where, by treaty stipulations, the annuities are issued annually, in one issue, and where it is provided that the issue shall be witnessed by a military officer detailed for the purpose, whose certificate also appears on the voucher in addition to the other witnesses, and whose report in the case is filed in the agent's accounts. Voucher 3 is for the regular weekly issues of supplies in accordance with the established ration, and is to be complete in all respects as indicated in the certificates printed upon each voucher.

A census is taken at each agency at the beginning of each fiscal year, and to save clerical labor the names of the Indians are printed upon voucher 3, the one used for weekly issues. Changes, as they occur, are added in writing by the agent, and new lists are printed when the changes render it necessary. No vouchers are accepted unless they fully meet the requirements indicated in the form, and in the certificates thereon. The totals of each issue are brought to Abstract D. The vouchers are made in triplicate, and immediately at the close of the issue (weekly or otherwise) one copy is forwarded to this office, thus removing any chance for manipulation of these receipts for any purpose whatever, upon making up the quarterly returns. There is also furnished to agents an "Issue-book" to be kept at the agency, open for inspection at all times, to contain a detailed record of each and every issue. At all agencies where subsistence is regularly issued, the agent is required to furnish weekly supply reports showing the quantity of each article on hand at beginning of week, the quantity received and issued during week, and the balance remaining at the close. These reports are recorded in a book for the purpose kept in this office, and as the number of rations and the number of Indians to whom issues were made must appear, any over-issue or other irregularity is at once noted and explanation required.

Abstract E.

This abstract shows the quantities of subsistence sold to employés, and the value of the same. No rations are issued to employés, but at agencies where subsistence is furnished by the government for the Indians, each employé is sold and must pay the agent for at least one ration, and permission is given to sell a sufficient quantity of the articles comprising the ration to employés for the subsistence of their families, at the contract price, adding cost of transportation. The quantities sold are brought to this abstract, and the aggregate of moneys received is carried to the agent's cash-account, as proceeds of sales of subsistence to employés. This abstract is a check upon itself, as the value of the property sold and the amount of money taken up by the agent must of course agree.

Abstract F.

This abstract shows all articles expended, worn out, &c., at the agency, and it must be sustained by certificates showing opposite each article the manner in which it was disposed of, and, for everything except his own office property, stationery, &c., the agent is required to furnish the certificate of each employé under whose immediate supervision the articles were expended, as to the correctness of the same.

In addition to the foregoing, agents are required to furnish affidavits of one or more disinterested parties in explanation of all loss of stock or other property lost or destroyed, by accident or otherwise, and that such loss was occasioned by no lack or care on the part of the agent or his assistants.

A return of medical property is also furnished.

As will be seen by the foregoing, a complete chain of evidence is established and required for all money or property received, from the time it comes into the hands of the agent until regularly and finally disposed of; and this evidence is not only that of the agent, but also includes all other evidence that is obtainable upon the reservation.

It is often asserted that no set of papers furnishes a complete check to fraudulent transactions, and that they can always be so used as to mislead the accounting officers in the settlement of an account; but it is believed that those now composing the cash and property accounts of an Indian agent are as full and complete as any that have yet been devised. Under the system now in operation, the possibility of perpetrating frauds upon the government or the Indians, and continuing to do so for any length

of time, is reduced to the minimum. With the books required to be kept always open to inspection at the agency, and the books kept at this office, with the number and variety of reports, other than the quarterly accounts required to be rendered, all of which have more or less bearing upon the accounts, and which go to the "examiner" for consideration in connection with them, fraudulent practices are certain to be brought to light unless there be perjury by the agent, false statements by each and every person whose name appears upon the papers, collusion between the agent and all of his employés and with the United States Indian inspector (who may visit the agency at any time), and gross negligence or collusion upon the part of the Indian Office in Washington.

There are seventy-four agents, each rendering quarterly cash and property accounts. These are required to be forwarded within thirty days after the expiration of the quarter. When received they are registered and receipt acknowledged to agent, and the Second Auditor of the Treasury advised of their reception. They are taken up for examination in the order in which received.

There are at present seven "examiners" employed upon the examination of accounts. The examination is carefully and thoroughly made, each item of expenditure of cash or property being closely scanned to ascertain if in accordance with law and regulations of the department. If not so found, a suspension or disallowance of the amount involved is noted, and upon completing the examination these "remarks" are signed by the "examiner" and the examination submitted to the Commissioner for approval. When approved an accurate record of the examination is entered upon the books of the division, and a copy of the suspensions and disallowances immediately sent to the agent for such explanation as he may desire to make, or for such additional evidence as he may wish to present. The accounts are now passed to the Board of Indian Commissioners for supervision and action as required by law, after which the board transmits them to the department, the action of the Secretary of the Interior completing the administrative examination. The accounts are then returned to this office by the department, and a further record is made of the action of the board and the Secretary. The amounts expended from each appropriation, as shown by the accounts, are now credited to the agent upon the books of the office by the bookkeeper of this division and the accounts forwarded to the accounting officers of the Treasury for final settlement.

The accounts of special agents at large, inspectors, and other disbursing officers, take the same course as above described.

In making examinations "examiners" are governed by the "Instructions to Superintendents and Indian Agents" of July 1, 1877 (now being revised), and the established rule to be followed is that all transactions embraced in the accounts of agents must be supported by the highest obtainable evidence.

III.—AGENCY EMPLOYÉS.

Section 5 of the act of March 3, 1875 (U. S. Stats., vol. 18, p. 449), provides that the number and kind of employés at Indian agencies shall be prescribed by the Secretary of the Interior, and none others shall be employed, and fixes the limit to be paid for salaries of employés at any one agency at \$6,000, except that by special authority the amount may be increased to \$10,000. This division supervises and controls all matters relating to employés, submits all questions pertaining thereto to the department for the authority required by law, and keeps a complete and accurate record, in a book for the purpose, of the entire force, notes all changes as they occur, and conducts all correspondence in connection therewith.

The appointments of Indian police authorized by Indian appropriation act for the fiscal year 1879, approved May 27, 1878, are also supervised and a record kept of them in this division.

It is the policy of the department to enforce regular labor among Indians, in accordance with section 3 of the act of March 3, 1875 (U. S. Stats., vol. 18, p. 449), and to control this matter by withholding luxuries, such as coffee, tea, sugar, and tobacco, from those who will not labor, and increasing in some measure the quantities to those who by labor render themselves worthy of them. The scope of this plan is clearly set forth in office circulars of March 1 and 25, 1878, and its direction has to a considerable extent increased the work of this division.

All correspondence pertaining to the accountability of agents for public funds and property placed in their hands is conducted in this division and a permanent record thereof kept in a book for the purpose.

THE LAND DIVISION.

This division has charge of all the Indian lands in the United States, and is the law division of the office.

LANDS.

The number of existing Indian reservations is 143, embracing an aggregate area in round numbers of 151,000,000 acres. They are found within the limits of twelve States and nine Territories, and are located, some in the midst of cultivated communities and surrounded by the highest types of civilization, others beyond the confines of enlightened society and remote from any correct moral influence.

Indian reservations are created and their boundaries defined in four different modes :

1st. By treaties, conventions, and agreements with the various tribes.

2d. By acts of Congress.

3d. By executive orders.

4th. By order of the Secretary of the Interior.

The treaties, conventions, and agreements relating to Indian lands concluded since the adoption of the Federal Constitution number 652, under all of which questions arise, with more or less frequency, for determination here.

The public and private acts and joint resolutions of Congress creating, recognizing, defining, modifying, regulating, disposing of, or otherwise affecting Indian lands number 230, to a large proportion of which occasional and in many cases frequent reference is necessary to determine the rights and claims inuring under them.

The number of executive orders, signed by the President in all cases, which have been issued creating Indian reservations, defining their boundaries, decreasing their areas, or restoring lands so reserved to the public domain, is about 150, all of which were prepared in this division, forwarded to the Secretary of the Interior, with reports showing the necessity or expediency of such action, returned after signature, and kept upon the files of the division.

There is but one regularly recognized Indian reservation which owes its existence solely to an order of the Secretary of the Interior, that of the Chehalis in Washington Territory.

The tenure of Indian lands is a matter of daily importance in the proper discharge of the duties of the office. The title of the Cherokees, and some other civilized tribes in the Indian Territory, is a base or qualified fee, determinable upon the extinction of the respective tribe, or permanent abandonment of the reservation. The Senecas, Onondagas, Cayugas, and certain other fragments of tribal organizations in New York hold by similar tenures. The title of Indians upon ordinary treaty reservations is a tenancy for life, with the rights and incidents appertaining to such tenure; while upon reservations created by act of Congress such title depends mainly upon the terms of the act itself. The occupants of reservations created by executive order, or by direction of the Secretary, are mere tenants at will, and possess no permanent right to the lands upon which they are temporarily permitted to remain. The consideration of these diverse tenures, the rights, claims, and controversies growing out of them, and the varied action required thereby, all devolve upon this division.

To the Cherokees, and certain other civilized tribes, patents have issued in the names of the respective tribal organizations, with the qualifications and restrictions to which reference has already been made. These patented reservations, however, are still under the constant supervision of the office, and present numerous, highly important, and exceedingly difficult questions for decision.

Railway companies have received grants of right of way through them, and have used timber, stone, and other material, in the construction of their lines. Rights and claims to compensation therefor, and to damages, direct and consequential, resulting from the opening up of these great thoroughfares of travel and commerce, have arisen, and are constantly presenting themselves for consideration and determination by this bureau.

By treaties and agreements with some of the civilized tribes the government has reserved the right to locate other peaceable Indians upon portions of their immense reservations. Preliminary to such locations the lands to be used for that purpose are segregated from the others, appraised, and their transfer to such new use effected by, or under instructions from, this division. Its action in this regard has extended to areas, so segregated and appraised, which aggregate several million acres.

The quasi independent and semi-sovereign status of the civilized tribes render their proper management more difficult than in the case of Indians upon ordinary treaty reservations. They sometimes claim and attempt to exercise the jurisdiction of authoritatively and finally determining questions of citizenship and expatriation among themselves, which are of the very essence of sovereignty and involve its highest prerogatives. Their legal relations as tribes and subordinate nationalities forbid the possession of the powers so claimed, and a wise public policy must absolutely prohibit

them as promotive of internal discord and injustice, destructive of the principle of subordination to the authority of the United States, and violative of rights and principles sacredly guaranteed in treaties with the Federal Government. The restriction of the unwarranted powers thus asserted, and the determination, under treaties, laws, judicial and executive decisions and rulings, and general fundamental principles of all the questions and controversies so arising, necessarily belong here.

The advancement of any people in civilization, with its accompanying complex business relations and new problems in social life, enhances the importance and increases the difficulty of a just and proper appreciation and administration of the general legal principles applicable from time to time to its progressively changing condition. As the Indian tribes, abandoning their primitive condition, assume the habiliments, adopt the customs, and claim the privileges of a higher civilization, the problems presented by this new order of things become not only more difficult of determination, but place themselves outside the domain of precedent, and require distinct, independent, and original decision and action. The Indians belonging to the tribes denominated "civilized" are in this transition state, and they, with others following in their footsteps, require from this office a control and jurisdiction the details of which can follow no precedent, because none exists. The varying titles of Indians upon the different classes of reservations present questions of almost daily recurrence which require prompt decision and speedy action here. As heretofore stated, bands of Indians upon ordinary treaty reservations hold their lands by a tenure equivalent in legal effect to a tenancy for life. They are not permitted to cut timber for sale or speculation, but only for fuel, building, and fencing purposes, or to clear forest-land for cultivation. Of the timber cut solely for the last-named purpose, they may sell such surplus as may not be required for use upon the premises. Indians living upon reservations have in general the right to cut hay for the use of their live stock, but are invested with no proprietorship in such spontaneous products of the soil as will authorize them to charge and receive compensation for hay cut and used by white persons thereto duly empowered by the Government of the United States. The same rule is equally applicable to timber upon Indian reservations. The military, when stationed at a post within an Indian reservation, have the right to cut and use timber and hay to an amount sufficient for their necessities, without liability to make payment therefor to the Indians, or to any person in their behalf. No persons except Indians, officers of the Indian service, and the military are authorized to cut timber or hay upon such reservations, and the rights in that regard of said excepted classes are carefully limited and restricted as stated above. All other individuals who cut, or attempt to cut, timber or hay upon these reservations are intruders and criminals, subject not only to apprehension and removal and to punishment for returning, but to fine and imprisonment for the trespasses in question, which are treated as misdemeanors under the law. Neither the Indians nor any other persons have in general any right to open mines or quarry stone upon reservations, except, perhaps, in a few cases where the object may be to secure stone for building purposes, coal for fuel, and petroleum for light. A very cursory glance at the varied and sometimes antagonistic rights, interests, obligations, and duties just stated will suffice to show the difficulties to be surmounted in determining, harmonizing, asserting, and enforcing them, all of which must be done by or under the direction of this division.

Under the provisions of various treaties, Indians of different tribes have the right to make selections of tracts of land of varying areas, in accordance with established rules and prescribed instructions, to receive certificates of allotment, and finally, upon most of the reservations, patents in fee-simple therefor. The preliminary investigation and decision of the legal status, as regards rights to allotments of each reservation, the instructions under which selections and allotments are made, the preparation of lists and documents upon which patents are issued by the General Land Office, the transmission and delivery of such patents, and the determination of all controversies and conflicting claims in regard thereto, all belong here.

In the majority of cases such patents do not carry with them an unrestricted power of alienation, but require the consent and approval of the Secretary of the Interior to any transfer or conveyance of such lands. This approval is based upon his satisfaction with the fairness of the transaction, the adequacy of the consideration, the expediency of the sale, or the competency of the grantor to decide that question, all of which facts must be shown by papers, documents, and certificates from the proper parties, duly authenticated, and free from fraud or suspicious surroundings. All this is done under certain prescribed regulations, varying with the different tribes. The preparation of these regulations, the examination of the deeds or conveyances executed thereunder, the rejection of such of them as fail to conform thereto, the recommendation to the Secretary of the Interior for approval of such as appear regular and free from objection, the record and transmission of the approved deeds, and the entire correspondence relative to the whole subject, pertain exclusively to this division.

Under many treaties lands are reserved or granted to individuals by name, with the right to receive patents therefor. All questions and duties in reference to such reservations and grants, except the issue of patents, are determined and performed here.

By act of Congress approved March 3, 1875 (18 Stats., p. 420), Indians who have abandoned or may hereafter abandon their tribal relations, are authorized to enter homesteads and receive patents for the lands so entered, with a restriction upon the power of alienation. The greater part of the responsibility and much of the labor arising from this class of cases devolve upon this bureau.

Many extensive reservations are ceded to the government by Indians in trust that they shall be sold and the proceeds applied to the benefit of such Indians. In these cases an appraisement of the lands is involved, the instructions for which, the examination of the returns thereof, the recommendations for approval, the record of the immense tracts so appraised, the preparation of copies, and the entire correspondence regarding the same, are all the work of the Land Division.

By virtue of various treaty provisions, half-breeds belonging to different bands of Indians, mainly Chippewas and Sioux, became entitled to scrip in lieu of their right to locate certain lands in place. The investigation of claims to such scrip, the issue thereof to proper claimants, the recording and transmission of the same, all inquiries into alleged abuses and frauds connected therewith, the re-examination of unsatisfactory cases, and the rejection of claims not clearly established, with all duties incidental to the foregoing, belong here.

Every bill originating in either the Senate or House of Representatives which affects in any degree Indian lands, or any claims arising from or connected with them, is referred here for examination and report, and in a large number of cases such bills are prepared in this division in the shape in which they finally become laws. In many instances, bills of this character which have passed both houses come here by reference from the President, for report as to the justice or propriety of his approval thereof.

Nearly every treaty, convention, or agreement which has ever been concluded with an Indian tribe, has had relation, in part at least, to lands or claims connected therewith. Consequently, the instructions to commissioners appointed to treat with Indians, are, in almost every instance, prepared here, and all correspondence connected therewith conducted by the Land Division.

All questions relating to the selection of reservations, changes of their boundaries, increase or diminution of the areas thereof, discontinuance of the same, removal of Indians from one point to another, and consolidation of the different bands or tribes, belong wholly or partly here, and originate in this division.

It is charged with the custody of duplicate plats, and full field-note records of the immense areas surveyed as Indian reservations, and of complete tract books showing the subdivisional descriptions of all such surveyed lands, together with the disposition of each tract.

It is also charged with the care and safe-keeping not only of the foregoing, but of all other records, files, diagrams, treaties, documents, or papers of every character or description whatsoever, relating to Indian lands, and with the further responsibility and labor of furnishing exemplifications of such records and files to proper parties for legitimate purposes, and upon due application therefor. The records in question which are in the custody of this division number several hundred, while the papers found upon its permanent files amount to many thousands. A large proportion of these records and files are of incalculable value, and if lost, destroyed, or mutilated could not be restored or supplied; hence the evident necessity of the utmost care in their safe-keeping.

In addition to the duties and responsibilities heretofore indicated, numerous miscellaneous questions arise constantly, and inquiries are propounded in regard to lands or to rights, claims, or controversies immediately or remotely connected therewith; all of which must be investigated, acted upon, or answered, as the case may require, by the Land Division. These inquiries come from other bureaus and departments of the government and from official and private persons, and are so widely varied as to admit of no general classification.

LAW.

The legal duties required of this division are grave, responsible, and manifold, and defy accurate classification. Such of them as relate exclusively to lands or cognate questions have been briefly and partially indicated in the foregoing pages. Indians occupy an anomalous position in this country. Their tribes are domestic, dependent nations, invested with a few of the attributes of sovereignty, but destitute of all its higher and more important characteristics and powers. Individual Indians are not citizens of the United States, and not foreigners. They are not within the purview of the Federal laws upon the subject of naturalization, and can only be clothed with the privileges and prerogatives of citizenship by treaty or act of Congress. They are sometimes in individual cases recognized or adopted by a few of the States as quasi citizens thereof; but even this relation is ignored by the Federal Government in dealing with them, and they are relegated to the undefined and indefinable legal status indicated above. They cannot sue or be sued under the judiciary act of 1789, and only get into the Federal courts as civil litigants in occasional instances by favor of special laws.

Indians in the Indian country are not punishable by any law for crimes committed against the persons or property of each other. These offenses are left to the penalties of tribal usage, which generally involve personal vengeance or pecuniary satisfaction for the wrong committed. Sometimes flagrantly troublesome offenders, who may have been guilty of the gravest crimes, are subjected to the farce of a few weeks' or months' arbitrary imprisonment in an agency guard-house or military fort. But while the Indian is not punishable for the commission upon his countrymen of any of the higher grades of crime, the laws relating to forgery, bigamy, and certain other offenses against public justice and morality are expressly extended over him. He may kill an Indian woman without excuse or provocation, and he thereby violates no Federal law; but if he marries instead of killing her, having a former wife living, he is subject to arraignment, trial, and punishment by the courts of the United States for bigamy.

A great many things are forbidden to the Indian, the doing of which, though in violation of established legal principles, and of express instructions, cannot be punished criminally nor restrained by civil judicial process, simply for want of courts and a code of laws to meet the case. In these cases there only remains the general supervisory and controlling paternal and police authority of the government to be exercised through the agent or by the military. In some instances Indians are subject to the control and punishment provided by United States statutes, in a few others to the limited jurisdiction of State or Territorial tribunals, and in a great many other cases to no civilized punitive control whatsoever.

White persons are punishable for all offenses committed in the Indian country, while for depredations upon the mails, introduction and sale of liquor, and certain other kindred crimes, all persons found guilty thereof, without regard to race or color, are subject to the penalties of the law.

Questions of guardianship of minors, or of persons *non compos mentis*, of the settlement of estates of decedents, of the reclamation of property stolen or illegally sold, of remedies for trespass, and of the general assertion and protection of all the rights of Indians, belong to this division, and require almost daily attention.

The authority of agents over whites and Indians upon the reservations under their control, their duties and powers in the adjustment of the rights and protection of the interests of all, and the extent to which any other jurisdiction may intervene in matters claimed to be within the scope of their official duties, are subjects requiring frequent consideration and action here.

All claims for arrears of pay, bounty, pensions, and bounty-lands, by reason of military service of Indians, are prosecuted for the claimants by this division, and a record of all such claims is kept here, showing each step taken therein and the final determination thereof by the Pension Office.

No contract with any tribe or with individual Indians not citizens of the United States, for the payment of money or the delivery of anything of value in compensation for services rendered, is valid unless executed in duplicate with certain prescribed requisites and formalities approved by this office and the Department of the Interior, and a copy thereof delivered to each of the contracting parties. This work belongs entirely to this division, as far as office action is involved.

In short, every question of law involved in the management of Indians, in their tribal or individual capacities, and regarding their internal or external affairs, or affecting in any manner their legal attitude among themselves, or with reference to the whites, becomes a subject for the determination of the Land Division.

CLERICAL FORCE.

The clerical force of this division consists of a chief, who is charged with the ordinary duties of such an officer, and is also *ex officio* acting law-clerk of the bureau, five other clerks, and one copyist.

The varied nature and complex character of the duties of the division render a strict classification of the work assigned to each clerk impracticable. Three are engaged upon legal and miscellaneous business, claims, and correspondence; one upon Indian deeds; and one upon the general work of the division including registering correspondence, examining appraisements, and other classes of duties. The copyist, by means mainly of a type-writer, performs for the division, and in part for the office at large, the duties indicated by the title. All members of the division are assigned to special work, differing from their ordinary duties, as the pressure of business or the necessities of the service may require.

THE CIVILIZATION DIVISION

Has to do in general with questions pertaining to the advancement of Indians in civilized pursuits; of educational and medical matters; of matters pertaining to depredations committed by Indians, as set forth in department rules and regulations, adopted in compliance with act of Congress approved May 29, 1872; with the appointment of

superintendents, agents, and inspectors, the recording of their commissions and bonds, and the issuing to them of instructions; with the supervision of trade with Indians, including the granting of licenses to traders, and recording the same in connection with their bonds.

There are employed in the division five clerks. The chief of the division has a general supervision and assignment of the work, conducts the correspondence, of a miscellaneous character, relating to questions constantly arising in regard to the conduct of the Indians, their welfare and their progress in civilized pursuits; questions in regard to the interference of the whites with the Indians, or of violations of the intercourse laws; removal and punishment of intruders, discipline of refractory Indians, establishment of new agencies, removal of Indians, special instructions to agents, also to inspectors in regard to investigations, and correspondence involving charges against agents.

EDUCATIONAL AND MEDICAL.

One clerk has charge of this branch of the business and a portion of that pertaining to the medical branch.

The educational branch has to do with all the Indian schools upon Indian reservations, the funds of which are disbursed under direction of the Indian Office. These schools (not including those of the five semi-civilized nations—Cherokee, Creek, Choctaw, Chickasaw, and Seminole—and those of the New York Agency, which are under the exclusive control of said nations) number 121, of which 45 are boarding and industrial schools and 76 are day-schools.

A monthly report is received from each of these schools, showing the attendance and status of the pupils and the condition of the schools, which is registered and tabulated in a book prepared for the purpose. Many of the boarding-schools are carried on under contracts, which necessitate the proper preparation and revision of the contracts, and all involve correspondence between the Indian Office and the agents and religious bodies to whom the educational and religious work of the respective agencies is assigned in reference to the appointments of proper teachers, the supplies of books and school-furniture, and the best means of promoting the efficiency of the schools. The reports from the New York schools are made quarterly, and are also tabulated. The schools of the five nations in the Indian Territory make annual reports, which are printed with the report of the Commissioner of Indian Affairs.

The medical branch is charged with the examination of the monthly sanitary reports, which are furnished from all agencies where agency physicians are employed or where the agent himself acts as such, and it takes such action thereon as may be called for by the facts presented. It revises and corrects the annual estimate of medicines required at the various agencies, and prepares all necessary blanks and papers for the annual purchases of medical supplies. It also provides all such supplies as the exigency of each agency may require at other times.

In addition to the above, it examines the monthly reports of agents and conducts the correspondence which may be necessitated by their contents. As these reports are intended to convey a current history of the agency, they are often voluminous, and the information contained in them is of importance to the service and requires careful consideration.

TRADERS OR LICENSES TO TRADE.

This branch of the business involves much correspondence and occupies a large portion of the time of the clerk who now has it in charge. The number of traders licensed at all the agencies is one hundred and twenty-five. Licenses to trade with the Indians are granted by the Commissioner of Indian Affairs under the act of Congress approved August 15, 1876, giving him sole power and authority to grant such licenses; they are granted only to citizens of the United States, of unexceptionable character, and who are fit persons to be in the Indian country. They are not granted to any person who may previously have had a license which was revoked or the forfeiture of whose bond has been decreed in consequence of the violation of any law or regulation, or who is an improper person to be in the Indian country. Care is also taken in the manner of making application for licenses; they must either be made in writing to the agent in charge of the Indians for whom the trade is desired, and by him be immediately forwarded to the office of Indian Affairs, or the application must be made direct to the Commissioner of Indian Affairs. The particular place at which it is proposed to carry on the trade must be designated; and the amount of capital to be employed, the name of the agent, the names of all clerks or other persons to be employed in connection therewith, and the capacity in which each is to be employed must be stated in the application. The application must also be accompanied by satisfactory testimonials of the unexceptionable character and fitness of the applicant and his proposed employés, if they be not known to the Commissioner. All applications for the renewal of a license are required to be made at least thirty days prior to the expiration of the existing license.

No trade is permitted with any other tribe or tribes at any other place or places than are specified in the license.

The trade with the Indians is required to be for cash only—the use of tokens or tickets prohibited. Agents are also instructed to require traders to furnish price-lists of all the principal articles proposed to be kept for sale to the Indians; said lists to be posted up in conspicuous places and a copy furnished the office and the office promptly notified of any cases in which Indians are charged higher prices than whites for similar articles.

A bond in the penal sum of \$10,000 is required to be furnished by the person or persons licensed that they will faithfully observe all the laws and regulations made for the government of trade and intercourse with the Indian tribes, and in no respect violate the same.

The principals of all trading establishments in the Indian country are held responsible for the conduct and acts of their employés, and any infraction of the terms or conditions of a license is considered good and sufficient reason for revoking it, in the same manner as if committed by the principals themselves. No Indian agent or other person employed in the Indian service is permitted to have any interest, directly or indirectly, in the trade carried on by any licensed trader at his agency. Where application is made to sell ammunition the same is forwarded to the War Department under a regulation adopted by this office during the past year. No permission is granted for the sale of ammunition by the Interior Department.

A record is made of the bonds and licenses of traders by the clerk who has charge of this branch of work, and he also conducts the correspondence which has reference to the license business.

APPOINTMENT OF AGENTS, ETC.

There are in the service seventy-four agents, three inspectors, and two special agents at large. These agents and inspectors are all required to give bonds, which vary in sums from five thousand to fifty thousand dollars. The several sums in which their sureties justify must in all cases aggregate at least double the penalty of the bond and be properly authenticated. One clerk has charge of the business of examining and transmitting these bonds to the Secretary for approval; of recording them after their approval, and transmitting them to the Second Comptroller of the Treasury; of recording and issuing commissions and issuing general instructions to agents. He also makes a record of all letters assigned to the division and a record of all claims on account of depredations; conducts the correspondence with the agents relative to their appointments, and also with the Interior and Treasury Departments in regard to the same; has charge of agents' monthly reports, examining same and transmitting to the different divisions having charge of the particular business to which they may relate; keeps the roster of agents, inspectors, &c., and transacts such miscellaneous and special work as is required of him.

CLAIMS ON ACCOUNT OF DEPREDACTIONS.

This business is transacted in the Civilization Division and embraces all claims for depredations committed by Indians against whites and by whites against Indians, where provision is made for the latter by treaty stipulations. A record is kept of all these claims, and the rules adopted by the department under the act of Congress, May 29, 1872, require a thorough examination of such claims by the agent of the Indians charged with having committed the depredation, their submission to the Indians in council, and transmission to the office, accompanied with his report. They are then examined, and a report made thereon to the Secretary, and are transmitted by him to Congress. The claims of this character presented to the office since 1864 amount, in the aggregate, to over \$6,000,000. The work pertaining to this branch is now performed by the chief of the division and the clerk who has charge of appointments of agents, the records of the division, &c.

The copyist, or fifth clerk, makes copies from the original transcripts, of all letters, reports, and miscellaneous matters which are sent out from the division.

DIVISION OF RECORDS AND FILES.

1st. This division, as its title implies, has custody of all permanent records and files, with the exception of those pertaining to the "Land Division" of the bureau.

2d. The records consist of yearly "Report Books," in which are recorded in permanent form all reports to the honorable the Secretary of the Interior.

3d. Yearly "Letter Books," of three classes, viz, Miscellaneous, Finance, and Accounts, in which is recorded all outgoing correspondence of every nature pertaining to the business of the Office of Indian Affairs.

4th. "Register of Letters Received," kept by the quarter, in which all incoming cor-

respondence, except claims, after being briefed, jacketed, if necessary, and stamped, is registered by abstract, in alphabetical order, and according to date of receipt, the name of the writer being the guide, with proper file-marks on margin of register, said file-marks duplicated on each paper and inclosure to identify them for the future in their ramifications through and final disposition by the office.

For convenience and rapidity of reference a system of double notations, in red ink, is kept up throughout this book in all important cases. Hence it will be observed that the clerk in charge thereof receives and distributes to the respective divisions of the office all incoming correspondence.

Upon the return of each paper, after final action has been had thereon by the division to which it was referred, said action is entered opposite the original entry on this register, and the paper then placed in its proper file, thus presenting in concise form a complete history in brief of each and every paper or document received.

5th. "Record of Claims and Contracts," in which abstract entry is made of all claims and contracts except those on account of depredations by whites or Indians (which latter are entered upon the "Register of Letters Received," and sent to and acted upon by the Civilization Division). Upon the return of all papers pertaining to claims, having been acted upon by the division to which they were referred, said action is entered opposite the original entry in the "Claims Book," and they are ready for the files, thus again presenting in concise form a complete history in brief of that class of papers.

6th. Yearly "Abstract of Letters Sent," in which are kept abstracts of all outgoing correspondence, with proper notations of date from what division, to whom addressed, subject, and finally the number of record or letter book, and page, within and upon which each and every letter can be found recorded in full. The system of keeping this book is by "file-mark," running from "Annuity," the first, to "Wyoming," the last. This book is a complete and clear index of all letters sent. The importance of the three foregoing registers as mediums for constant and quick reference, for the information of every division of the office, in the transaction of the business thereof with celerity and dispatch, cannot be overestimated.

7th. *Arrangement of the files.*—The files are arranged in file-boxes, properly marked with the names of agencies, superintendencies, and localities, by dates, and these file-marks agree in every particular with those referred to in the registers hereinbefore mentioned. They are placed alphabetically, and the papers within alphabetically and numerically arranged. It is impossible that access can be had thereto except by those duly authorized, and in every instance where a paper or document is withdrawn therefrom, the clerk charges himself with it by leaving a slip in lieu thereof in the file-box. This same rule applies to the record and letter books.

8th. The clerical force consists of six men:

1. The chief of the division has charge of the "Register of Letters Received," and exercises general supervision.
2. Clerk in charge of "Abstract of Letters Sent."
3. Clerk in charge of "Claims Book."
4. Clerk in charge of "Report Book," containing reports to the Secretary.
5. Clerk in charge of "Miscellaneous Letter Book," containing record of all letters, except reports to the Secretary, written by the Land and Civilization Divisions; and,
6. Clerk in charge of briefing.

THE WORK OF THE PURCHASING COMMITTEE OF THE BOARD OF INDIAN COMMISSIONERS.

As showing the methods pursued by the Board of Indian Commissioners, in the conduct of that branch of Indian business of which they have special oversight, it may not be out of place to insert here a report received from the chairman of the purchasing committee of the board:

NEW YORK CITY, September 16, 1878.

SIR: The department of the Indian service which the Board of Indian Commissioners has assigned to the supervision of its purchasing committee may be appropriately designated as the mercantile department, demanding in its administration sound mercantile judgment and thorough mercantile experience, with a familiar acquaintance with the best markets for manufactured goods, agricultural implements, and products, and every description of article required for the maintenance, education, and elevation of the Indian tribes, a large portion of which are furnished in fulfillment of treaty stipulations.

To those unacquainted with the details of this service, a study of the following

incomplete list of articles purchased upon government requisitions may prove instructive:

Beef on the hoof, 35,000,000 pounds per annum.	Sewing-machines.	Coffee.
Bacon.	Agricultural implements.	Tea.
Mess beef.	Mechanical implements.	Tobacco.
Mess pork.	Hardware.	Rice.
Lard.	Tin ware.	Baking-powders.
Wagons.	Wooden ware.	Hard bread.
Flour.	Crockery.	Groceries (general).
Corn.	Paints and oils.	Soap.
Oats.	White lead.	Beans.
Hay.	Indigo.	Blankets.
Hominy.	Medical stores.	Clothing.
Harness.	Surgical instruments.	Boots and shoes.
Saddles and saddlery.	Cutlery.	Hats and caps.
Harness leather.	School books.	Dry goods (general).
Harness oil.	School furniture.	Notions.
Mowing-machine.	Sugar.	Shirts.
	Molasses.	Woolen yarn.

At the letting of contracts in June last more than three hundred and fifty proposals were received for the foregoing articles and for transportation, and it has been the aim of the Commissioner of Indian Affairs and the Board of Indian Commissioners, in awarding contracts, to secure the best values offered, a faithful delivery of identical value by the contracting party, a careful distribution to the several agencies, and safe transport thither, reserving original samples, so far as practicable, for verification if required.

An active participation in these transactions during four years justifies the confident belief that the present methods of administration in this branch of government service are eminently suited to the protection and security of the best interests of the government and the Indians, and that for general fidelity, integrity, or efficiency the mercantile department of the Indian Bureau cannot suffer by comparison with any other branch of public service.

Very respectfully,

E. M. KINGSLEY,
*Chairman Purchasing Committee,
Board of Indian Commissioners.*

REMARKS.

Of late years there have been many and radical changes in the administration of Indian affairs. The present methods of accounting for property and money, and of doing the business generally, are so different from those of former years that a few comparisons may not be amiss.

Until the fiscal year of 1876 and 1877, each Indian agent had charge of the disbursements of the funds which were appropriated for his agency. At the present time the total disbursements of Indian agents for other purposes than the payments of cash annuities and the salaries of employés do not exceed \$100,000.

Formerly almost all the money expended for the Indian service was spent in payment for open-market purchases. Now almost all expenditures are made by payments through the Treasury Department for goods purchased under contracts made by the Commissioner of Indian Affairs.

Formerly agents were the sole judges of the necessities for making purchases. Now they must submit their proposals and estimates and give satisfactory reasons to the Commissioner of Indian Affairs, who, if he approves, must ask the Secretary of the Interior for authority to make the purchases.

Formerly there was nothing to prevent contractors putting in straw bids, or withdrawing after a contract had been awarded to them, in order that a bidder at a higher price (oftentimes the same party under another name) might receive the award. Now bidders are obliged to deposit certified checks upon some national depository for five per cent. upon the amount of the contract to be awarded, which checks will be forfeited if, upon the award being made, the party fails to enter into contract.

Formerly contracts were so drawn that those to whom beef and flour contracts were awarded could and did habitually take advantage of the necessities of the Indians to force agents to accept grades inferior to those called for by the contracts. Now these contracts are so drawn that if a contractor fails to carry out his agreement in good faith he is subjected to a heavy loss.

Formerly agents hired as many employés as they saw fit and paid them such salaries as they chose. Now all employés must be approved by the Secretary of the Interior, and legal limits are fixed to the amounts which may be expended for agency employés.

Formerly agents' accounts ran on for years without settlement. Now, their accounts are settled quarterly.

Formerly funds were remitted quarterly to agents, even though their accounts might not have been sent in for two or three years. Now remittances to agents are not made and the salaries of their employés cannot be paid until their accounts for the preceding quarter have been received in the Indian Office.

Formerly the unexpended balances of funds which remained in the hands of agents at the end of a fiscal year were carried over by them to succeeding years until their retirement from the service. Now balances are covered into the Treasury at the end of each fiscal year.

Formerly agents expended government property in such manner as they thought best. Now sufficient reasons must be given for the disposal of any government property, and authority must be obtained from the Secretary of the Interior before any expenditure can be made.

Formerly supplies issued to Indians by Indian agents were receipted for by the chiefs. Now each head of a family and each individual Indian who is of age must receipt for himself.

Formerly when annuity moneys were paid to Indian tribes in fulfillment of treaty stipulations a large percentage of the whole sum was divided (or supposed to be) among a few prominent chiefs. Now each individual Indian, including chiefs, receives his *per capita* share.

Formerly flour was accepted at an Indian agency without any inspection. Now it is inspected before shipment and again upon its arrival at the agency.

Formerly when beef-cattle were delivered at agencies two or three head were selected by the contractor's herder and the agent, and by their weights an estimate was made of the weight of the whole herd. Now the agent must render a certified weigher's return for all animals received.

Formerly Indian traders were permitted to charge whatever prices they might elect to put upon their goods. Now their prices are controlled by the Indian Office.

Formerly a trader might charge an Indian two or three times the price charged a white man for the same kinds of goods. Now traders are forbidden to make any distinction in prices, under pain of the forfeiture of their licenses.

Formerly the Indians were imposed upon through a system of brass checks, tokens, and store-tickets. Now traders are forbidden to use anything but money.

Formerly contracts were made with Indians for collecting claims against the government, by which attorneys took from one-half to two-thirds of the sums which were collected. Now all contracts made with Indians must be approved by the Commissioner of Indian Affairs and the Secretary of the Interior before attorneys can have any standing in the Indian Office; and, if contracts are approved, attorneys are obliged to show what services they have rendered before any payments can be made.

In the fiscal year 1874 the appropriations for the Indian service amounted to \$8,329,815.80, and the actual number of Indians to be cared for by the government was less than at the present time. For the service during the present fiscal year there was but \$4,733,875.72 appropriated, and there now are 250,000 Indians to be cared for.

In addition to the three Indian inspectors which were formerly allowed, there are now two special agents connected with the bureau. With this force, and a proper administration of the business, there need be no difficulty in detecting frauds and reforming the service. Time alone is needed.

REPORTS OF INDIAN AGENTS.

REPORTS OF SUPERINTENDENTS AND AGENTS.

COLORADO RIVER INDIAN AGENCY, ARIZONA,
August 10, 1878.

SIR: I have the honor to submit the following as my first annual report of Colorado River Reservation, Arizona:

W. E. Morford, former agent, was relieved by J. C. Mallory, jr., of New York. The agency and its surroundings were found to be in a most deplorable condition in every way. The incoming agent was left to assume the duties devolving upon him, in a strange land, among a people to whose dialect he was a perfect stranger, without a single employé to aid him in his work, with the exception of the Chinese cook and Indian interpreter and laborers. All white employés had been discharged. Personally the new agent was compelled to perform the duties of agent and employés. P. K. Smith, an old mining man, arrived here the same day and was persuaded to remain temporarily as engineer, and as soon as the agent found he could leave the agency for a couple of days he proceeded to Ehrenberg, with the hope of being able to procure the services of reliable men to fill the remaining vacancies, but was only successful in the employment of a carpenter, owing to the small wages allowed and the high price of provisions.

December 19, Mr. Mathews was employed as head farmer, and at once went to work in directing the Indians in laying out farms and in digging wells on the same for the purpose of irrigation in the event of water not being attainable from the irrigating canal. The wells dug, owing to the sandy nature of the soil, had to be curbed. This was done with cottonwood and willow; but in many instances even this precaution proved futile, for the pressure was so great as to cause the green timbers used to cave. The few farms thus planted did not repay for the amount of labor expended for the reason that a sufficient quantity of water could not be obtained.

The winter crop of wheat and corn planted in the river bottoms was almost a complete failure. The corn was blighted with a black rust, while the wheat did not have sufficient time to fill prior to the setting in of the intensely hot weather. The Indians labored very faithfully in carrying water from the river and wells near by in the endeavor to save their crops, but with only partial success.

In the midst of their work they were seized with that most dreadful plague, small-pox, and there being no physician at the agency, they went in a body down to Ehrenberg. At this time the agency was visited by General Watkins, United States Indian inspector; but owing to the absence of the Indians his visit proved hardly satisfactory to him. In about seven days the Indians returned to the limits of the agency, completely demoralized with fear and in a starving condition. J. C. Mallory, jr., the then agent, had in the mean time sent to Yuma, on his own responsibility, to procure the services of a physician, and was successful in persuading Dr. J. H. Taggart, of Yuma, to come up. The department at Washington were at once requested to sanction the temporary service of the physician, which was not only at once done, but an appropriation of \$3,000 granted for the purchase of beef and flour to alleviate the sufferings of those starving creatures. Food could not have come to them in a more opportune moment; for their bodies were so emaciated from want that they proved an easy prey to disease. All the employés worked day and night, both prior to and after the arrival of the physician, in the endeavor to alleviate their sufferings. Most of the Indians who were well enough to go about were kept constantly employed in cutting and hauling wood for funeral pyres to burn the bodies of those deceased.

On the disappearance of the scourge, and as soon as the Indians were able to again go to work, planting again began with what few seeds remained. The river not having risen to anything near its usual height, only about 100 acres of the best land in the river bottom and along the sloughs could be made available. Some weeks since I visited the farms within a radius of 20 miles. The crops had just started, and promised well; but even though they should yield to the fullest extent, there will not be sufficient produced for all these Indians.

In previous reports the attention of the department has been called to the starving condition of these Indians, and the absolute necessity of their being provided with even the scanty ration of beef and flour, which was taken away from them three years ago to add to the issues of the San Carlos Indians. Estimates for the same were called for and rendered; but as yet no action that I am aware of has been taken, with the exception of the issuing of a contract for supplying this agency with 50,000 pounds of

flour for the fiscal year commencing July 1, 1878 (no part of which has yet been delivered) The Department of the Interior have done cheerfully all that was in their power for the advancement and aid of these Indians. It remains with the Congress of the United States now either to fulfill or break (as they have done) the promises given to and received by these wards of the nation in good faith. The power or endeavors of the best agent, civil or military, that ever lived, will prove of little or no avail if the promises given by the government to the Indians be not fulfilled. To this source is attributable the present degraded position of these Indians.

With reference to the irrigating canal, I purpose, if furnished with beef and flour, to set the Indians to work in the fall to clean out the sediment accumulated at the head-gate at Camp Colorado, and change the face of the head-gate downstream. I have not any faith, however, in any ditch that will only be available for use in high water.

The agency buildings, and means of transportation, are falling rapidly into decay from want of proper material with which to effect the necessary repairs. Estimates for material have been furnished, but as yet none has been supplied. The carpenter in repairing wagons has been compelled to go down the bottoms and select green cottonwoods and willow, and hew them out to the desired size. As long as the sap is retained this wood answers very well; after it is gone, your pole or reach is liable to break at any moment.

A teacher having been allowed at this agency, I purpose re-establishing the school for children as soon as I am able to procure the services of a competent teacher. I would strongly urge that the school established be a boarding school; that the children be educated, fed, and clothed at the expense of the government, and kept separate from their parents. For this purpose a suitable building will have to be erected, as the only one that ever was here that would answer the purpose, was erected by the military, and destroyed by them, prior to their leaving here.

John C. Mallory, jr., United States Indian agent at this reserve, died at the agency June 25, 1878. Having been thoroughly conversant with his plans for the future management of the agency, I at once assumed charge, notifying the department of my action, which was approved by my being appointed farmer in charge of agency. In all things I have endeavored to work to the best interests of the department and the Indians confided to my care, and while so intrusted shall continue to work for their best interests and advancement.

On Tuesday next a "memorial service" will be held by these Indians, in commemoration of all of their people who have died; it is to take place about 18 miles from here. I shall furnish a special report of the proceedings to the department immediately after.

Very respectfully, your obedient servant,

HENRY R. MALLORY,
Farmer in charge of Agency.

The COMMISSIONER OF INDIAN AFFAIRS.

PIMA AGENCY, ARIZONA,
August 15, 1878.

SIR: In compliance with your instructions of July 1, I have the honor to submit my annual report of the condition of affairs at this agency.

Under its supervision are three tribes of Indians, viz, the *Pimas*, *Maricopas*, and *Papagoes*. They number in all about 11,000 souls. They occupy two reservations in the south central part of Arizona, which are about 100 miles apart.

SELF-SUPPORTING.

They are entirely self-supporting, never having cost the government a single dollar for their maintenance. They are and have always been friendly to the whites, and in the past have manifested their friendship in many ways, and it is their boast that they have never killed a white man.

THE PIMAS AND MARICOPAS.

These Indians number about 4,500, and are located on a small reservation on the Gila River, a miniature stream, such as would be termed a creek in any part of the Eastern States. It has but little timber, which is composed of cottonwood, willow, and mesquit, the latter furnishing a most excellent fuel, and bearing a species of bean which in ordinary seasons forms an important item of food.

This locality has been the home of the Pimas as far back as our knowledge of them extends. The Maricopas, originally from the Colorado River, joined them here at a later period. As is natural, they are greatly attached to their homes, and though the climate here is far from being the most desirable, on account of the intense heat of the summer, yet being thoroughly accustomed to it, they experience no particular inconvenience or

bad results therefrom. They are farmers and live wholly by tilling the soil, and in the earlier days of the American history of the Territory they were the chief support of both the civil and military elements of this section of the country, by supplying them with the products of this reservation. They have also in the past proven the firm friend and ally of the white man, against the then hostile Apache Indians, who at one time overran the country; and through these means, they have enabled the white settlers to gain a foothold here many years earlier than they would have done without them.

Farming is conducted here by irrigation, and the Indians, as well as the settlers, are entirely dependent on the Gila River for water to irrigate their farms. This reservation contains 70,000 acres, of which at least 50,000 is entirely worthless, except as grazing, and the past two years of drought it has produced little or no grass. Of the remaining 20,000 acres, only about one-fourth has been available on account of the scarcity of water during the above-named period, and this year the area is much less. Notwithstanding the fact that only a small portion of the reserve is good arable land, still it would afford the Indians a good living if there could only be secured for them a sufficient quantity of water for irrigating purposes.

SCARCITY OF WATER.

From the great lack of water, many hundreds of these Indians have been forced to leave their reserve and seek a living elsewhere. There are two causes which unite to produce this effect: First, the excessive drought which has prevailed here during the past few years; and, second, the immigration of the white man. The latter, attracted by recent mineral developments in the Territory, is rapidly settling in the more desirable parts of it, and as he too must use the water afforded by the stream, the supply is visibly decreasing year by year. Aside from the Salt River Valley, the Gila River with its tributaries furnishes water for almost all the available agricultural land in the Territory; and as nearly all the white settlements on these streams are above the reservation, the more water used by them the less reaches here. As the country continues to develop, and the white population increases, the demand for agricultural products will assume a corresponding ratio, and it is safe to predict that in a very short time no water will reach this reserve, except in the winter season, when it is of no value for farming purposes.

Until a few years ago the main body of the Indians were settled on the western part of the reserve, which then afforded them plenty of water, but now almost the entire western half of the reservation is abandoned, and is a dry, barren waste, and nothing has been raised there this year. The extent of the drought there cannot be better illustrated than by the fact that there is not even enough water for the Indians and their animals to drink, much less to afford them the means of producing food. In addition to this state of things, the crop of mesquit beans (a natural product of the country), a nutritious and pleasant adjunct to their supply of food, has this year been almost an entire failure in the vicinity of the reserve, and thus depriving the Indians and their animals of quite an important item of sustenance.

In consequence of the foregoing facts, as a matter of self-preservation, more than one-half of these Indians have been forced to leave their reserve, in order, to use their own language, "that they might not hear their women and children cry for bread," and there are now about 2,500 of them living beyond its lines. Most of them are earning an honest support by tilling the soil in small patches in other localities, wherever they can find sufficient water for that purpose. Others of them are at work for the American and Mexican settlers, who have employment for them, and a few, I regret to say, are hanging around the settlement in idleness. The latter, by working a little, begging and petty pilfering, manage to eke out a precarious existence. As yet, but few complaints have reached me from the settlers; but slight depredations by the idle ones who are pressed for food are liable to occur at any time.

INDIANS ABANDON THE RESERVE.

That circumstances have compelled the Indians to thus abandon their homes, no one regrets more than your agent, especially as it brings about a contact between them and the settlers which is far from being beneficial to either race, and takes the Indians out from under the control and influence of the agency. About one-half the Indians now off the reserve are living in the Salt River Valley. They have taken up lands which were unoccupied and unclaimed by the settlers, generally in small and undesirable tracts. They are, as a rule, quiet and industrious. Many of the white people living there are in favor of having them remain among them, and there is on file at this office several letters and petitions to that effect. Others, however, are opposed to their settlement among them, and already some steps have been taken on the part of some of the whites to secure some of the lands that the Indians now occupy. Aside from this, the principal trouble between the Indians and the settlers arises from the encroachment of the Indian stock upon the latter's fields. The fencing there is, as a rule, very poor, and the animals take an easy advantage of the fact. These cases, however, are generally adjusted there, and so far no serious results have been reported.

From the foregoing statements, it may be easily seen that if these Indians are made to return and confined to their reservation, they will have to be fed or they will starve. The cost of subsisting several thousand Indians is no inconsiderable item, but a far worse feature of the case is that the pernicious consequence of taking a people heretofore peaceable, industrious, and entirely self-sustaining, and making paupers of them by reducing them to dependence on the government, can scarcely be exaggerated. It is the policy of the department to make all its Indians self-supporting, and any deviation from that purpose, except in the case of sternest necessity, will work evil to the Indians. It is far better to afford them at once every facility to maintain an honest independence, and I would earnestly urge that you would use your utmost influence to that end. These tribes are not affected with the aristocratic idea that labor is dishonorable, but with proper means they will in the future as in the past prove that they can take care of themselves.

EDUCATION AND PROGRESS.

The educational progress of the Indian school children has not been as rapid as we could desire; but there are many disadvantages to contend with. The means at our command are wholly inadequate to meet the necessities of the case. There are belonging to the reserve over one thousand children of the right age to attend school, whereas our facilities enable us to reach less than one hundred. Our hope for the civilization of the Indian is largely through the education of their children. To this end I would recommend that a boarding-school be established among these tribes as soon as practicable. The fitting of some of our most promising scholars to become teachers or assistants for their own people would be a wise provision. In our present day-school system the pupils are in attendance but a few hours each day, and then return to their homes, and the progress sought for is more or less retarded by their contact with their parents and friends who, of course, understand no English, and there the children have no opportunity of putting in practice what they have acquired in the hours of study.

LAWS FOR THE INDIAN.

We need a code of laws for all grades and classes of misdemeanors, to operate among the Indians, through which proper punishment can be meted out to offenders, instead of leaving them to the disposition and settlement of the relatives or friends of the injured parties. The superstition of witchcraft prevails with these people to some extent, and in a few cases, during the past ten years, the accused parties have been made to suffer death for their supposed proficiency in this art. In all probability this belief can be eradicated only through their higher civilization.

INTEMPERANCE AND IMMORALITY.

That intemperance and its companion, prostitution, exist among these tribes to some extent cannot be denied, but they are due largely to causes already set forth in this report. These evils are by no means general among the Indians, but may sooner or later become so, if not speedily corrected. With the increasing settlements which are springing up on our borders, and the growing difficulty, from want of water, of earning a living by honest labor, it is not surprising that some of the Indians should yield to the evil influences by which they are surrounded. If these influences cannot be suppressed, the Indians should be removed beyond their reach, or at no distant day we may witness the ruin of these once happy and virtuous tribes.

THE SANITARY CONDITION

of these tribes during the past year is as good as could be expected. The drought has prevented anything like fevers, but other ailments have appeared in their usual season. All that could be reached with the means at our command have been carefully treated. Your authority for the employment of a physician for this agency is timely, but the amount allowed therefor is very low, and I fear we will not be able to permanently retain one at that figure.

REMOVAL TO THE INDIAN TERRITORY.

Believing that the reasons for such a change are yearly increasing, I cannot let this occasion pass without earnestly urging that these Indians be removed to the Indian Territory at the earliest practicable time. I am more and more convinced every year that they cannot remain here much longer, and continue self-supporting, and that country, I believe, offers the best inducements of affording them all the necessary facilities for continuing their past independence. Once settled there, with these opportunities given them, surrounded by good influences, enjoying an immunity from all evil contact, and with schools and missions to meet their mental and moral wants, they would soon assume a place in the front rank of the Indians of that Territory. Their long and confirmed habits of industry would soon develop greater efforts toward progress and civilization, and they would soon recover the ground lost in last few years

In fact, I believe their only hope of salvation from a speedy extinction lies in their early exodus to the Indian Territory; and feeling this I cannot too strongly urge its prompt consummation.

SETTLEMENT IN SEVERALTY.

If this cannot be done immediately, I would recommend that in the mean time the department furnish such of them as desire it with the means of locating land in severalty, as per late provision of Congress. Many of the Indians now outside of this reserve are living on lands adapted to farming purposes. As long as they are allowed to remain in possession of them they can continue to make their own living; but, as has already been reported to the department, they are in danger of losing them, for as these lands become valuable by cultivation, they are courted by the white man. The Indians are poor and cannot well pay the expenses of acquiring a homestead, such as surveying, entry fee, &c. And if assisted to that end, they could maintain their independence until such a time as they could be removed to the Indian Territory.

THE PAPAGOES.

Much that has been said concerning the Pimas and Maricopas obtains with equal force in regard to the Papagoes. They number about 6,000 souls. A reservation has been set apart for them on the Santa Cruz River, another miniature stream about like the Gila in volume. This reserve is located about nine miles from Tucson, the principal town of the Territory, and on it are the ruins of the celebrated mission of San Xavier del Bac. It contains about 70,000 acres of land, most of which, like the Pima reservation, is worthless. A part of it is tolerably well timbered, but it is poorly watered, and is wholly inadequate to the wants of its Indians. Less than one-half of them are living on it. The balance of them are scattered over a tract of country about three hundred miles in length by over one hundred in width, extending from Tucson to the Colorado River. They are for the most part a pastoral people, and have located wherever they could find springs, marshes, or low lands, that would furnish water for their stock. They also do some farming when their supply of water permits. Like the Pimas, they are a quiet, peaceable, laboring race, and the exceptions to this rule are very few. They supply the town of Tucson and vicinity to a considerable extent with wood and hay, and perform a great deal of labor for the settlers throughout this section of the country. They, too, have suffered in the past few years from drought, and their condition in this respect is similar to that of the Pimas. They speak the language of the Pimas, and were originally of the same tribe, but in years past, under the influences of the Jesuit and Franciscan missionaries, they gradually became a separate people. They are probably less wedded to superstition than the Pimas, and manifest other differences in various ways.

There are no government buildings on the Papago reserve with the exception of a school-house, which, though built by the department, was unfortunately joined on the San Xavier mission building, and is now claimed and held by the Catholic church. This fact has already been made the subject of several special reports.

There are about thirty Mexican families living on the Papago reserve, much to the annoyance of the Indians, who have made several complaints to the agent, which have also been referred to the department.

THE SANITARY CONDITION OF THE PAPAGOES

is better than that of the Pimas; this is probably owing to the fact that for the past few years they have been allowed the services of a physician, while the latter were forced to do without one.

REMOVAL.

Although the general condition of the Papagos, as regards their facilities for continuing self-supporting, is not so critical as that of the Pimas and Maricopas, your agent believes it is rapidly becoming so, and he would therefore recommend that they, too, be removed to the Indian Territory as soon as the Pimas are fairly settled there.

TRANSFER OF THE INDIAN BUREAU TO THE WAR DEPARTMENT.

In regard to the question of the transfer of the Indian Bureau to the War Department, I cannot take ground too strongly against the proposed change. My reasons are numerous, and many of them are already too patent to the thinking public to need repetition here.

* * * * *

If we accept as true the theory "that a good Indian is a dead one," then the red men should immediately be turned over to the Army, and in a very few years the complement of "good Indians" in the happy hunting-grounds will be complete, and their former existence only a matter of history. If, on the contrary, we reject that theory, and assume to elevate the race, we must do it with peaceful means.

Another vital objection to such a transfer is the fact that the contact of the troops with the Indians is almost invariably fraught with the most evil consequences to both.

Dissipation, prostitution, and their attendant results quickly follow in the wake of such association, and their effects on the Indian are permanent. That it is almost if not wholly impossible to prevent these consequences, is, I believe, generally admitted by officers of the Army who have served at the frontier.

In the application of the transfer to the tribes of this agency, I believe there are no Indians in the country who require it less, or whom it would injure more. They are peaceable, quiet, and friendly, and how will the Army benefit them? They are capable, willing, and industrious, and how can the Army hope to improve them? On the whole, I cannot think of any disposition of the Indian, as a race, that would prove more fatal to them than this transfer to the supervision of the Army.

In conclusion of this question, I would state that, both at the councils held by these Indians and by individual members of their tribes, there is but one sentiment expressed, which is a decided opposition to the substitution of military rule for civil authority. As they have vital interests in the question, they should not only be heard on the subject, but due consideration be given their opinions.

POLICE.

The police system lately inaugurated will, no doubt, when fairly in operation, be a means of greatly assisting the various agents, in the administration of their many duties, and we hope for good results from it here.

EMPLOYÉS.

The force of employés allowed for this agency is insufficient to meet the best interests of the service, and their salaries are too low for the duties expected of them. I would recommend that the number be increased to at least one more, and that they receive reasonable remuneration for their work.

The Reformed Church, under whose care these Indians have been placed, has a deep interest in their spiritual and general condition, and to that body, and also to the Ladies' Union Missionary Association of New York, I take this opportunity for expressing thanks for their aid and sympathy in our work.

I am, sir, very respectfully,

J. H. STOUT,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

SAN CARLOS INDIAN AGENCY, ARIZONA,
August 1, 1878.

SIR: I have the honor to submit my first annual report of affairs at the San Carlos Indian Agency.

The Indians belonging to this agency are of two distinct races, speaking different languages and being very dissimilar in their manners and customs. The Mohaves and Yumas came originally from Western Arizona, in the neighborhood of the Colorado River, and the Apaches, of whom there are seven distinct tribes, are a race whose ancestors lived entirely in the mountainous portions of the country. These tribes are again subdivided into bands, each of which has its chief or captain who is held responsible for the behavior of his people.

These distinct organizations, although agreeing very well when not brought into close contact, will not live together, nor is the nature of the land adapted to a large number of people being gathered within a limited space, the scarcity of wood and grass making it necessary for the different bands to live apart, and their former nomadic habits causing them to prefer company by small parties or families.

When the Coyotero Apaches were moved from the White Mountains Reservation they were induced to come to the Gila country on the condition that they should be allowed to live and draw their rations up the river about twenty-five miles from the main agency, and on the removal of the Chincahua and Warm Spring Apaches they were also promised they should live where they pleased on the reservation and chose the eastern portion, drawing their rations with the Coyoteris. A temporary sub-agency was established by Agent Clum, and on the recommendation of Inspector Vandever the present branch agency was erected at a distance of fifteen miles above the main agency on the Gila River; this virtually makes the reservation consist of two agencies under the control of one agent, the Indians being counted and issued rations each week at both agencies.

In May last Inspector Watkins directed that the supplies should only be issued from the main agency, and made his decision known to the Indians. They informed him they neither could nor would live all in one place, and as in some cases they would have to come twenty miles for their rations, the old people and children and others who had not animals would not be able to travel so far each week, and therefore they

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would rather go to the mountains and get their subsistence, as they had done before, than be forced to come to the main agency for their food. Inspector Watkins being apprehensive of some of the Indians causing trouble, promised them they should be rationed as before for the present.

On September 2, 1877, about three hundred of the Warm Spring Indians left the reservation, taking with them a number of animals belonging to other Indians. They were followed by the police and Indian volunteers, and nearly all the stock they had was captured, and thirteen Indians killed, and thirty-one women and children brought back prisoners by the different parties that went in pursuit. The Warm Spring Indians shortly afterward surrendered to the military authorities at Fort Wingate, New Mexico, and have since been fed as prisoners of war at Hot Springs, New Mexico.

At the commencement of the present year I exerted all the influence possible to cause the Indians to commence work getting out irrigating ditches to enable them to raise grain. I was very successful in inducing them to work, the only cause of complaint being the want of necessary tools. The men, women, and children worked with a will, and dug about twelve miles of ditch, but, unfortunately, most of the ditches made in the neighborhood of the branch agency were, through lack of tools, not finished in time to be available for the present season. The Indians living on the San Carlos River and below the agency on the Gila were more successful on account of the ditches requiring less work, and in the first part of the year raised about thirteen hundred and fifty bushels of barley and one hundred bushels of wheat, the barley being partly sold to the trader and in the neighboring mining towns, and a part being yet held in store at the agency for the respective owners. The wheat raised was mostly for food, being ground and mixed with water and made into a kind of mush. The Indians have now about 40 acres of corn and beans under cultivation in small patches irrigated from the Gila and San Carlos Rivers, and besides which there is at least an equal quantity being raised in various parts of the reservation where by natural springs plats of ground can be cultivated without irrigation. The seeds applied for were not obtained until five months after the advertisement for proposals, and are consequently useless for the present season, and the potatoes planted did not mature in consequence of the lightness of the soil. The corn and wheat raised, although only a small quantity, is more than was ever planted here before, and has been of great value to the Indians during the present scarcity of supplies. In fact, the Indians are forced to subsist themselves otherwise than by the flour ration, as the quantity issued is not more than one-half the flour actually required for bread; and the corn, although a substitute, does not answer the same purpose in bread-making.

Numbers of these Indians are constantly employed in the towns of Globe and McMillans and in the different mining camps and ranches near the western boundary of the reservation. They are engaged in bringing in hay and wood, making adobes, herding cattle, &c., and thereby manage to clothe and help support themselves and their families. The average number of Indians rationed during the year is over four hundred less per week than the actual number belonging to the agency, and among this number that are constantly away and perpetually changing in individuals there has not been a single case of theft or other depredations against settlers committed—a showing that scarcely any community of equal number can make in this or adjoining Territories. A great number of animals strayed upon the reserve and mixed in with the stock belonging to the Indians, but have been promptly given up when demanded in every case, and requests are received at the agency by every mail for single Indians and parties to work for adjoining settlers. They are almost without exception willing to work, and could constant employment be found for them they would be easily made self-supporting. As it is, there is no work which the majority of them are capable of doing, and scarcely any sale for what produce they can raise in excess of what they can consume. I am firmly persuaded that should a good mill be erected, with sufficient power, enough grain could be raised by them, without assistance other than farming implements, to supply all the flour required for their support.

They are very anxious to obtain stock-cattle, and are trying to do so by saving up their weekly ration of beef until they have sufficient to draw one or more cows. One Indian has already accumulated 43 head, and the total number owned by the Indians in June last was 521 stock-cattle and 760 sheep.

The principal requirement of the agency is a well-established boarding-school. At present there is neither school nor teachers, and there are over fifteen hundred children, who, as a class, are bright and intelligent. I have spoken to the headmen on the subject on several occasions, and they appreciate the value of education, and are willing and desirous that the children should be taught. Day school, with the children returning to their camp every day, would not be sufficient, as the retrograde influence out of school would counteract the improvement made under the teachers. Inspector Watkins on his last inspecting tour recommended that an appropriation should be made to erect a suitable building, and establish a school with the requisite number of teachers; and I earnestly request that the honorable Commissioner will authorize the required

expenditure, as all hopes of thoroughly civilizing these people must rest with the rising generation.

The discovery of a valuable mineral belt in the northeastern portion of the reservation has caused the town of McMillans to be built, and a number of encroachments made upon the reserve to obtain timber, herd stock, and locate mines. I have repeatedly urged the necessity of having the boundary marked in order to be enabled to remove the actual trespassers, but have not yet received the necessary instructions, and until such survey is made the trespassers referred to refuse to acknowledge any right to remove them. The surveyor-general of the Territory informed me that he had represented the importance of the matter to the authorities of the Land Office, and I trust that some arrangement may be made during the coming fall.

The agency Indian police, established in 1875, is the greatest executive assistance an agent could possibly have. The force requires to be large to have sufficient authority, as it has to have members at both the main and branch agencies. During the past year, through its influence, the making of all intoxicating liquors has been stopped and the parties implicated arrested; and not only are the offenders against agency discipline caught and punished, but the institution of a guard-house to confine criminals as a punishment has brought the Indians to making their complaints to the agent in all criminal and civil cases among themselves, in place of the old custom of summary punishment inflicted by the party offended. Through this breaking up of the old custom, and the activity and zeal displayed by the Indian police in arresting all offenders against discipline, I am enabled to report that not a single case of murder or homicide has occurred among these Indians, or any crimes committed against settlers, since I have been their agent.

Very respectfully, your obedient servant,

H. L. HART,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

MOQUIS PUEBLO INDIAN AGENCY, ARIZONA,
August 24, 1878.

SIR: In compliance with your circular-letter of July 1, I have the honor to submit the following as my first annual report of the condition of affairs at this agency:

The agency was discontinued on the 1st of October, 1876, and placed under the supervision of Mr. Alex. G. Irvine, agent of the Navajos. The public property belonging to the agency was all disposed of at public auction; consequently, upon my arrival here in February last, I found nothing but the empty buildings, and they were in a dilapidated condition, having been occupied in the mean time chiefly by the Indians. The remoteness of the location from all kinds of supplies makes improvements quite tedious and expensive.

During the month of February I visited their villages, seven in number, and witnessed, by invitation, two of their important dances, the bean and corn dance, which occur annually to please the Great Spirit so that he will send them abundant crops during the coming season. They are an exceedingly superstitious people. Their villages are located upon high bluffs of rock which rise from eight hundred to one thousand feet above the surrounding plain, and are approached only by narrow, precipitous pathways, over which they pack all the products of their farms, either on their backs or upon asses. Their wood and water are also conveyed in the same manner. Their dwellings, built of sandstone and mortar, are from two to four stories high. Their rooms are entered from the top through a small aperture by means of a ladder, which is the only source they have of ventilation.

From the census which was taken July 1, I find that there were 105 births and only 4 deaths in the first six villages, being an increase of nearly 10 per cent. in population during the past year; they now number 1,140. The Oraibies still refuse to be enrolled. They have a population of at least 650, making the total population of the seven villages 1,790.

After a careful survey of the country, I have recommended the removal of the *Moquis Pueblo* Indians and agency to some point on the Little Colorado River between meridians 110° and 111°, for the following reasons:

1st. That a sufficiency of good, arable land, and water for irrigating purposes, can be had for these Indians and also for opening an industrial school, which can be made to contribute largely to the support of said school and which cannot be had at its present location.

2d. It would have a great tendency to Americanize these Indians, by encouraging them to open up separate farms along the river and to abandon their superstitious modes of life and dress by being brought constantly in contact with the Americans.

3d. It would save an expense of several hundred dollars a year for carrying the mail to present agency.

4th. It would very materially reduce the cost of transportation of supplies. It is a difficult matter now to get teams to come into the present agency, and more especially during the winter season.

5th. The labor of erecting the buildings and making the improvements could all be performed by the Indians except a small portion of the carpenter work. The Moquis are good stone-masons and there is plenty of rock along the river. The cost of erecting suitable buildings would not possibly exceed \$5,000.

6th. The present agency building is liable to be flooded at times during the wet season. It was all that we could do to save it from being destroyed by the floods during some of the heavy showers this month. It is located in a cañon 10 miles in length, $1\frac{1}{2}$ miles from its head, 150 feet below the surface of the surrounding country, and is from 200 to 300 yards in width. The agency, as now located, can very properly be compared to the inside walls of a prison yard; short curves in the cañon obstructing the view at a distance of about 300 yards above and 400 yards below the building; so that in appearance it is surrounded by almost perpendicular bluffs of rock 150 feet high.

7th. Their present mode of living, huddled in villages, each house communicating with the other, induces promiscuous intercourse to such an extent that many are afflicted with venereal diseases. This evil can only be remedied by providing separate homes for each family and causing them to live apart from each other.

These Indians have never been at war with the United States; have always been friendly with the whites, with few exceptions, and consequently are deserving of some protection and relief by the government. They were formerly the possessors of all this country, but have been driven to their present location for defense against the more powerful tribes who have surrounded them.

The Moquis Pueblo Indians are more inclined to devote themselves to the cultivation of the soil than to pastoral pursuits. The farming lands surrounding the villages are barren and unfit for agricultural purposes, and but little better for grazing. Fair crops of corn, beans, melons, and squashes are produced on an average of three out of five years. Less than an average crop of corn and about one-half a crop of beans, melons, and squashes have been raised the past season by the almost unremitting labor of the Indians of this agency. At the commencement of spring the weather was cold and wet, and extremely unfavorable to agricultural pursuits. As soon as the corn first planted appeared above ground it was totally destroyed by either frost or insects, and second planting was devoured by caterpillars as soon as it was a few inches high; thus rendering a third planting necessary in most instances. Later in the season a large portion of the lands under cultivation were overflowed with water from the more elevated country surrounding it, which caused the destruction of a considerable percentage of the growing crops. The people of Tequ Village have lost their entire crop, with few exceptions, and are anxious for a change of location. During the past year quite a number of families of Moquis have been engaged in cultivating wheat upon lands in proximity to the agency, but the rains and floods which occurred in August materially injured their crops, about one-third being lost thereby. Wheat was also raised by ten families of Moquis at the Mormon settlements upon the Little Colorado River. They were farming upon shares with the Mormons. The Moquis are yearly extending the area of land planted by them, and the deficiency arising from short crops, does not, therefore, cause any great degree of suffering or want. The Moquis Indians do not, like most other Indians, resist innovations upon their customs and habits; they seem exceedingly desirous of acquiring the white man's mode of farming, and thoroughly examine and investigate any new manner of cultivating the soil.

There has been no school in operation among these Indians since September, 1876. They manifest a great desire to have their children educated. They guarantee to keep from forty to fifty scholars in regular attendance at the boarding school as soon as it shall be opened. They also ask to have a primary school opened in the second and fourth villages, so as to accommodate the smaller children of the six villages and those who will be deprived of the advantages of the boarding school by having other duties to perform at home. I find a marked difference between the young men who attended the boarding school which was in operation at this agency during the year 1875 and part of 1876, in manners, dress, energy, &c.

I would recommend that six of the brightest Moquis boys, sixteen years of age, be sent to a State normal school for four or five years, where they could have the greatest advantages for the least amount of money. I feel confident that they could be maintained in many of the State normal schools for \$200 each per year. These young men upon their return would make competent teachers, as they would understand both the English and the Moquis languages, and could be employed by the government. Such a system would certainly do much toward educating, civilizing, and christianizing these Indians.

There have been no missionaries nor any missionary work attempted among these Indians that I can learn of.

The only incident that has occurred among these Indians of a serious nature during the past year was the murder of one and the wounding of another of their number by four Pi-Utes, while on a trading expedition to Saint George, Utah. The Pi-Utes were arrested by the Mormons, turned over to the civil authorities, and the leader of the party sentenced to fifteen years' imprisonment in the penitentiary.

Very respectfully, your obedient servant,

WM. R. MATEER,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

HOOPA VALLEY AGENCY, CALIFORNIA,
August 19, 1878.

SIR: In compliance with instructions, dated Interior Department, Office of Indian Affairs, Washington, D. C., July 1, 1878, I would respectfully report that, owing to there being no appropriation for this reservation during the past year, very little improvement has been made, as the reservation, when turned over to me, was entirely dismantled. I applied to the honorable commissioner to have the stock that was taken from here to Round Valley returned. The agent at Round Valley was instructed to turn over to me such stock as he could spare. Strange to say, out of the large number of horses, mules, &c., driven off, numbering about fifty, only four old, broken-down horses and four mules, and a lot of old straps, called harness, could be spared.

With one employé, at a salary of \$25 per month, I succeeded in repairing the fences and getting under cultivation about fifty acres of wheat and about the same of hay. I have harvested about about forty tons of hay and will have about 50,000 pounds of wheat. The grist-mill is entirely useless. If it could be used, and this wheat turned into flour, it would relieve the wants of these Indians greatly, as the old and sick are about destitute. During the past year I have expended about \$1,350—\$350 for the purchase of farming implements and \$1,000 in the purchase of supplies for the working men and the sick.

The Indians on this reservation are peaceable and well disposed. I regret to say that they have not received much encouragement to remain "good Indians." They need an active, honest, and energetic agent to superintend and advise them. Many of them are industrious and willing to work, and I recommend that not so much of the appropriation be used in the employment of white labor, and a small allowance of money be paid the Indian for his day's work.

The resignation of Dr. Reid, physician on the reservation, was accepted, to take effect December 1, 1877. This left me without a doctor. Many of the Indians were sick and suffering for want of medical attendance. Dr. Price, assistant surgeon U. S. A., could not accept the appointment of physician, and it was actually necessary for some one to look after these unfortunate people, as a number of them were in a most deplorable condition. I authorized and requested Dr. Price to render them every attention. He was most assiduous in his attention, and I earnestly recommend that some action be taken by the honorable Commissioner toward compensating Dr. Price for the valuable service rendered the department.

Very respectfully, your obedient servant,

RICH. C. PARKER,
Captain Twelfth Infantry, Acting Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

ROUND VALLEY INDIAN AGENCY,
Mendocino County, California, August 12, 1878.

SIR: I have the honor to submit this my first annual report of affairs at this agency, for the fiscal year ending June 30, 1878. I assumed charge here October 1, 1877, so that three months of the fiscal year had already passed.

This reservation contains 102,118.19 acres, or about 159 square miles; of this, only about 4,000 acres lie in Round Valley and on the southern boundary line; 1,080 acres of this land is claimed and held by three parties, as swamp and overflowed land, and is yet in litigation. The remainder of the land is hilly, some rolling, and some mountainous. All but a small portion affords excellent grazing for stock, and is mostly held at present by white men, who have over 40,000 sheep, 1,200 cattle, 500 horses, and 600 hogs, that derive their entire feed from these lands, grazing thereon the entire year. Could we be put in sole possession of these lands, they would soon be covered with a similar number of stock, and *all* for the benefit of the Indians, as they can easily obtain

them to keep on shares, and thus, in a short time, have an abundance of their own, and be procuring a good livelihood in the mean time. There are many spots scattered over these hills that will produce the best of vegetables, with ordinary cultivation.

NUMBER OF INDIANS, ETC.

The census of the Indians on this reservation, as just taken, gives 326 men, 118 boys, 423 women, 98 girls, making a total of 965. This number is subject to variation, and will be, as many wish to visit their friends, and thus are going and coming. Such a life is greatly to be deprecated, as they cannot become successful in civilized pursuits while leading a nomadic life. All our Indians wear the dress of civilized life, (when they can get it); many live in comfortable board or log houses, and others in "campoodies" (huts), made of puncheons, pieces of boards, &c., or of tules (a kind of rush), which grow in great abundance on the wet land in this valley.

Besides the Indians living here, there are various bands scattered around, from 20 to 250 miles distant, amounting in all to over 1,500, as near as I learn from different parties from whom I have received letters, complaining of them, and wishing me to bring them on to this reservation. Some of the most distant tribes were once here. In each of these tribes are a few who are industrious, and obtain a very good living by working for others, but the larger part are non-producers, essentially, and hence a burden to the communities where they live.

PRODUCTIONS.

We have not raised as much grain this year as has been reported in years past; owing to the very wet winter, much of the wheat was drowned out, and the ground was too wet to seed well in the spring. We have cut 700 tons of hay, and will probably have 4,000 bushels of wheat, 2,500 bushels of oats, 1,500 bushels of barley, 2,500 bushels of corn, 250 bushels of potatoes, 50 bushels of beans 1,000 bushels of apples, and 40 tons of squashes. The hops (30 acres) promise well, both as to quality and quantity, but not as to price, and it is doubtful whether they will pay for gathering and curing this year. About 12,000 pounds were cured and sold last year, but they did not quite pay expenses, owing to the low price at which they sold.

The Indians have about 300 acres included in their gardens, but they are not cultivated as yet after the most approved methods, and hence the results are not as we could wish they might be.

IMPROVEMENTS.

We have not been able to make many improvements the last nine months of the year, as there was but little lumber left when I took charge, and none could be manufactured till after July 1, yet there have been a few Indian houses built. We have also commenced a large barn, 60 by 80 feet, at headquarters, which will hold 100 tons of hay, and furnish stabling for 20 mules and 20 oxen.

The hop-house and grist-mill were finished during the first quarter of the fiscal year, and are a credit to the reservation; they were fully reported by my predecessor.

We have built 50 rods of good board fence, moved and reset 1,280 rods, and thoroughly repaired 640 rods of rail fence.

Twenty acres of willow thicket have been cleared and grubbed; 240 rods of ditch, 12 feet wide and 3 feet deep, have been cut to protect land from overflow at high water. One mile of turnpike road has been made between the upper and lower quarters

MILLS.

We have two mills, a grist-mill and a saw-mill. The grist-mill was rebuilt last year, using the same machinery. During the wet season it can be run with water-power, but after harvest, until the rains come, we are obliged to use steam-power, using heretofore our portable engine; but there is really danger to life and property in using it in the mill, as it has not the power necessary without too high pressure for its age. During the past winter our mill has earned on custom-work over \$1,300. As there is no other grist-mill within 60 miles, it is the only place settlers can get their grain ground. Extensive repairs will have to be made to our mill-dam before another winter.

The saw-mill is located about 6 miles on an air-line and 15 by the wagon-road from this agency, and is capable of cutting from four to seven thousand feet of lumber per day. It is run by steam-power, and cannot be run during the winter on account of cold storms and snow. This fall we expect to cut 150,000 feet of fencing and replace old rails with a good board fence. We expect also to cut all lumber necessary for building Indian houses, barns, and necessary repairs.

AGENCY BUILDINGS.

We carry on our property accounts a large number of dwelling-houses that are really not worthy the name, as they are old and rotten, ready to tumble down. There is but one really good substantial house on this reservation, which was formerly occupied by the commanding officer at Camp Wright, two miles from this agency. It

is built of brick, lathed and plastered, &c., but it needs a new floor, as the floor timbers have become rotten. It is occupied at present by the physician.

A house is greatly needed for the agent's residence, the one he now lives in being too small and uncomfortable. He has no room to lodge an inspector or other visitor, and his family is subjected to many inconveniences and annoyances thereby. An appropriation is greatly needed for this purpose to purchase such materials as we cannot furnish.

INDIAN INDUSTRY.

Some of our Indians can work at carpenter work, and can give assistance in that way, but not one is yet so skillful as to be able to make a door or window frame and case it without the plainest directions and oversight. Three can start or stop a steam-engine, but are not by any means engineers, as they have to be watched closely to prevent accidents. As to their general work they need constant supervision, and it is surprising how skillful they are at breaking tools and machinery.

SANITARY.

On account of the heavy continued storms during the past winter, there was a larger amount of sickness among our Indians than the year before, as shown by the physician's reports; 1,489 received medical treatment, as against 662 the year before. There have been 34 deaths the past year, against 31 the year before, so that the proportion of deaths to the number treated is much smaller. Only 19 births have been reported. With such a large proportion of aged and infirm Indians as we have, the death rate must be expected to exceed largely the birth rate for several years. The year closes with a greatly improved sanitary condition.

We greatly need a sanitarium, where the aged, blind, and infirm can be cared for as they cannot be at their huts. There are buildings at Camp Wright, but the distance is so great, and the impracticability of getting there in the winter such that they are nearly useless to us, unless we could move them down to or near headquarters.

EDUCATION.

I wish I could make a report of what has been done to educate the Indian children that would be alike flattering to teachers and scholars, but to report exceptionally good scholars only leads to false impressions as to others. Some of the pupils can read well, very well, but many that have been under instruction for three years cannot read intelligently, and but few, if any, seem to understand *what* they read. Some can write well, as to mechanical execution, "and quite a number can work" at "the first four rules of arithmetic"; but a new teacher asked a boy who had been attending the school for five years to add 6 and 1 on the slate; he could tell well by mental process, but did not know how to make a figure 7. I doubt not that teachers have been earnest and faithful, but results show that there has been too much effort expended in the cramming process and not enough in the truly educative. Again, the mistake appears to have been made (so common) of taking for granted that they are as intelligent and quick to apprehend abstruse ideas as white children; a mistake too common among clerical as well as lay teachers. But little can be done for them unless we can take them away from the corrupting influences of the camps, by putting them into a boarding-school. I am satisfied that the real advantages of such a place would far outweigh the expense, which will not be great, as the pupils could aid largely in their own subsistence.

MISSIONARY LABORS.

Owing to a severe attack of sickness, our missionary, Rev. J. B. Hartsough, has been able to labor but part of the year. However, regular services have been held at both school-houses every Sabbath, and Sunday-schools taught, in which most of the employés and their families have assisted.

Four years ago a "wonderful revival" took place on this reservation, and nearly all the Indians "joined the church" and were baptized; but I fear that by far the larger proportion had not an intelligent idea as to what those ceremonies meant. On taking charge here I found a few (about twenty) who seemed really desirous of being Christians; some of these have and some have not experienced a radical change of heart. Some are as intelligent, earnest, growing Christians (for their advantages) as I have ever known. Of 798 members reported last year, 20 are all that the missionary thinks are worthy of the name. This wonderful falling off is sad, and yet why should they be carried and reported, when they are devoid even of the *form* of godliness? And here I find there has been the same want of discernment of Indian character, and "babes in Christ" have been "fed" (starved) on unsuitable food. One of our Indians described the defection in this way: "Indians all good Christians long as sugar-barrel not empty; but bimeby sugar all gone, mos' all slide back."

CONCLUSION.

We have not sufficient farming land to give our Indians in severalty so that they could support themselves by farming, and the larger part of them would prefer stock-

raising, for which we have ample room if we can get the control of our range. But the parties holding the range are delaying the suit for various reasons, as each year's use of said range is worth \$20,000 to them. Thus we are hampered and bothered, so that we are compelled to support our Indians mostly from the agency farm.

I hope that soon these questions will be settled, when smaller appropriations will suffice; but as it is now it is impossible to do justice to these wards of the government without direct appropriations of a larger amount than has been given for the last three or more years.

Respectfully submitted.

H. B. SHELDON,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

TULE RIVER INDIAN AGENCY, CALIFORNIA,
August 20, 1878.

SIR: I have the honor to submit my third annual report of this agency.

This reservation embraces 90,557 acres, and is a rough, mountainous district, the greater portion of which can only be utilized by occupying it for grazing purposes. The arable land within the limits of the entire tract will not exceed 200 acres.

Only two remnants of tribes of Indians are now represented on the reserve, the *Tules* and *Tejons*, though it was originally designated for six. Last year I reported 254 Indians under my care. Since that time some 69 have been induced to return to the Madden farm or old reservation. They informed me that a man representing himself as the owner had given them permission to cultivate, free of rent, as much of it as they pleased, assuring them at the same time that the government would finally purchase it for them. It is a singular fact that no one has ever taken possession of the Madden farm, and that these Indians are permitted to make it a place of general rendezvous. I now report 180 Indians on the reservation, who are acting in full accord with the requirements of the government, and made my requisition for the present fiscal year upon this basis. After another year these will be able to support themselves. As I stated in my last annual letter, all they will require after that time will be some one to protect them in their rights and conduct their school.

AGRICULTURE.

The Indians have raised on their small farms during the past year 500 bushels wheat, 250 bushels corn, 100 bushels barley, 50 bushels potatoes, 10 tons pumpkins, 10 tons melons, and 20 tons hay. Thirty-two tons of hay and 60 bushels of wheat have been produced on the agency farm—sufficient to supply the government stock with forage and furnish seed for another year.

It has been my policy to have the Indians work as much as possible on their own farms and but little on that of the agency. The beneficial effects of this course are quite apparent. It begets a feeling of self-reliance, stimulates to habits of industry, and removes all pretext for idleness.

EDUCATIONAL.

A day school has been taught nine months during the year. The register shows an average enrollment of 34 pupils. There has been evident improvement in all the classes, some having advanced quite rapidly. It is almost impossible, however, to conduct a day school with satisfaction. As I am unable to issue provisions adequate to their support, it is extremely difficult to secure a regular attendance, especially of the older pupils. While there is much to discourage, enough has been accomplished to warrant the continuance of a school even of the same character.

MISSIONARY WORK.

Religious education with these Indians progresses slowly. The old superstitions handed down through the ages, are as dear as life to many of them. Religious services have been held every Sabbath, consisting of Scripture reading and such catechetical exercises as are adapted to the congregation and circumstances. The attendance is generally good, and all are respectful and attentive.

INDIAN INDUSTRY.

Those Indians located on small tracts of land are usually considerate of their farming interests. Some are even models of industry, working harder and more hours per day than the average white man. They plowed their own ground, sowed the seed, harvested their crops, and hauled their wheat to mill with no assistance save the use of government teams for plowing and means of transportation. They have also, under

the direction of the employés, constructed a number of water-ditches for irrigating purposes. No unprejudiced person can now visit this reservation without observing marked evidence of improvement in systematic farming and general habits of industry.

SANITARY.

The sanitary condition of these Indians is gradually improving. They are badly diseased, however, and the mortality must necessarily be great. During the past year there have been 9 deaths and 5 births. This shows the ratio of mortality 50 per cent. less than three years ago and 25 per cent. less than the year ending June 30, 1877.

CIVILIZATION.

I am glad to be able to report some progress in the work of civilization. Not a drunken broil has occurred, and but two cases of intoxication to my knowledge on the reservation. Comparing the present condition with that of a few years ago, there is reason for increased effort upon the part of agencies employed by the government in the elevation of these Indians.

I am, sir, very respectfully, your obedient servant,

C. G. BELKNAP,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

LOS PINOS INDIAN AGENCY, COLORADO,
August 17, 1878.

SIR: In compliance with circular-letter, dated Office of Indian Affairs, Washington, D. C., July 10, 1878, I have the honor to submit the following, as my first annual report of affairs pertaining to this agency:

On the 16th day of January, 1878, I entered upon my duties as agent, relieving my predecessor, W. D. Wheeler. On my arrival I found the stock of beef and flour entirely exhausted and the Utes clamorous for something to eat. The agent of the contractor for beef and flour for the fiscal year ending June 30, 1878, was at the agency waiting to deliver the first installment of the same. But no notice of the contracts having been awarded had been sent to the agency, nor had any instructions been issued to receive such supplies, and for these reasons I did not consider myself authorized to make issue until communicating with the department, although the cattle had been at the agency for several weeks prior to my arrival. I, without loss of time, telegraphed for the necessary authority; my application was promptly granted, and in less than two weeks from the date of my taking charge, the distribution of the beef and flour commenced. The installment of flour was only sufficient to make two issues, and we were unable to get any more until the 25th day of April, by reason that transportation over the mountain ranges was impossible, on account of the deep snows, followed in the early spring by an impassable depth of mud.

The winter was very severe and the snows unusually deep, and but for the ample supply of beef we had on hand, and the flocks of sheep and goats belonging to the Utes, on which they largely depend for subsistence, there must have been much suffering among the Indians at this agency. There were many complaints of hunger and of insufficiency of rations. That such complaints were not more numerous and persistent is surprising.

The supplies for this agency have to be hauled in wagons over the Continental Divide and two other high mountain ranges—for long distances over the worst of roads—from the terminus of the railroad at Alamosa, a distance of nearly 250 miles, and when shipped later than the 1st October unavoidable delays are apt to occur, which may postpone their delivery until late in the following spring. To insure prompt delivery, all supplies should be forwarded early in the fall, and this rule should be observed, not only for the benefit and convenience of the service, but also in justice to the contractors, who must lose money if required to carry on transportation during the winter season.

CONDITION, HABITS, AND DISPOSITION.

The Utes have made but little advancement in civilization; they are ignorant, indolent, and generally extremely filthy in their habits and modes of life. They are averse to licentious intercourse with other tribes of Indians and with the whites, but among themselves their condition in this respect is deplorable. It is not infrequent to find several families living promiscuously in the same lodge. Polygamy is common. The use of intoxicating liquors does not prevail to any great extent, but gambling is very prevalent.

Ablutions of any kind are seldom indulged in, except by some of the chiefs and headmen. Clothing is worn without cleansing until it becomes utterly worthless. I am

inclined to think, however, that they are slowly improving in this respect as they come more frequently in contact with the whites.

The barbarous custom of painting and making themselves hideous with feathers and the skins of wild beasts is not so commonly practiced as formerly. Many of them now wear citizen's dress in part, and the native costume is gradually being abandoned.

The Utes are decidedly nomadic, having no fixed settlements or camps, and rarely remaining in one place longer than ten or fifteen days. A band encamped in the vicinity of the agency to-day is very likely to be 25 miles away to-morrow. Their time is largely occupied in hunting and wildly wandering over their vast reservation, which embraces nearly 12,000,000 acres.

With few exceptions, they are a quiet, peaceable, well-disposed people. Quarrels and contentions among themselves are infrequent, and not a single instance has come to my knowledge of violence or crime committed by them against the person or property of the whites settled along the borders of their reservation, or even against the squatters, who knowingly, and in defiance of all right and justice, and even the authorities of the government, have encroached upon and taken possession of their most fertile lands. The chiefs and headmen, with two or three exceptions, are earnest in their desire to preserve friendly relations between their people and the whites and to remain at peace with the government, notwithstanding the feeling that most of them have that "Washington" has broken faith in treaty obligations and has given encouragement to the white intruders upon their reservation. They cling tenaciously to their tents and seem to have no desire to occupy houses; the former they can fold up and move at pleasure, and such habitations are of course more in accordance with their nomadic character than the stationary dwelling of civilization would be.

AGRICULTURE.

Very little progress has been made in this branch of industry. The farming at the agency has all been performed by the white employés, and all efforts on our part have not been sufficient to induce the Indians to give up their superstitious prejudices against the performance of manual labor.

The acquisition of herds of horses and flocks of goats and sheep shows that the Ute has advanced from abject savagery to the pastoral state. The very nature of his territory makes this the natural first step toward civilized life. With his flocks he can wander throughout his barren domain, going where the patches of grass are greenest—on the mountain side in summer, and along the streams where sedges are most abundant during the long severe winters. He is at present very well satisfied with his mode of life, and any effort to make him adopt the higher or agricultural stage must be conducted with great skill and patience, and the expenditure of enough money for large irrigating ditches in the few river valleys where arable land exists. The example of the head chief Ouray shows that the civilization of the Utes and their development in the direction of agriculture can be accomplished successfully should the right means be adopted and energetically carried forward. He resides in a pleasant, comfortable house, well furnished, and has about 60 acres under cultivation; and, in spite of inexperience, poor tools, and a scant supply of water for irrigating purposes, he has succeeded in raising good crops of wheat, potatoes, and all kinds of garden vegetables. Again, in the valley of the Gunnison, some eight or ten Indians are engaged in farming—they having chosen the location of their own accord, and have already, as I am informed, some 75 acres under cultivation. That they are successful is inferred from the fact that they do not come regularly to the agency for rations, but merely draw their annuity goods, and occasionally apply for flour.

Given good irrigating ditches in the valley of the Uncompahgre, for instance, and with competent men to teach them the use of agricultural implements, the methods of planting and caring for crops, and there is but little doubt that in a few years the Utes would be permanently located, and to a great extent self-supporting.

EDUCATION.

The impossibility of carrying on a school during the past year has been the source of much regret to me, for I am sure much might be done in the direction of education were the requisite facilities only within reach. There are no school buildings at the agency, nor has any appropriation been made for the purpose, and I have refrained from pressing the matter, knowing that it is the desire of the department to transfer the bands under my care to some other part of the reservation.

To reap his livelihood from the products of the soil, to adopt civilized modes of dress, and to establish himself in a permanent house should be the primary lessons taught the Ute, and the man qualified to place him in such a position should be his first instructor. When this first step shall have been accomplished, then it will not be difficult to collect together the young and bring them under proper discipline so that they may be educated in the ordinary branches of learning and such industries as may lead to their ultimate advantage.

No missionary work has been performed among the Utes during the period of my administration.

SANITARY.

The Utes are generally supposed to be a very healthy tribe, but I am informed by the agency physician that there is much sickness among them. It is not practicable to give any reliable statistical facts in regard to this important subject, for the reason that the Indians do not seem disposed to give any information as to the prevalence or character of diseases among them. The fact of a death having occurred is invariably concealed if possible. The establishment of a hospital in connection with the agency is a matter of the first importance, and until this is attended to the treatment of the sick cannot be carried on to advantage.

CONCLUSION.

I regret to say that the result of my labors in behalf of the Indians placed under my care has not been as satisfactory to me as I could wish. But the want of school buildings, means to pay a teacher, a hospital, and well-directed missionary labors, has and will continue, until the want is supplied, to impede their advancement and civilization.

Very respectfully, your obedient servant,

JOSEPH B. ABBOTT,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

SOUTHERN UTE AGENCY, RIO LOS PINOS, COLO.,
August 18, 1878.

SIR: In compliance with circular dated Office of Indian Affairs, July 1, 1878, I have the honor to submit the following annual report of this agency:

AGENCY BUILDINGS.

There are but two buildings at this agency, the erection of which was begun September 3 and completed November 1, 1877, under authority from the honorable Commissioner of Indian Affairs, dated April 27, 1877. The storehouse, 20 by 60 feet, and the dwelling, 18 by 54 feet, divided into three rooms of equal dimensions, are substantial hewed-log buildings, covered with first-class hand-made shingles, the erection of both of which cost \$1,396.25. On the 5th of November I recommended the erection of another building, to consist of an Indian room 18 by 30 feet and two additional rooms for employés, 12 by 18 feet each. By letter from the department, dated February 7, 1878, I was informed of the contemplated removal of these Indians to the Indian Territory, and directed that no further steps be taken at this time with a view to any permanent improvement on this reservation. With this in view, and the fact that I have had no funds available for myself, agency expenses, or employés, and the great paucity of employé force allowed at this agency, no further improvements have been undertaken.

SUPPLIES, ANNUITIES, AND ISSUES TO INDIANS.

Supplies first arrived at this agency January 24, 1878. The annuities came February 2, 1878. The tardiness of the arrival of supplies and annuity goods, the former on account of the difficulty of having the estimate approved, and the difficulty of having the latter shipped to the agency, very much retarded the effort to collect the Indians here. By the time we were in readiness to receive the Indians and comply with what had been promised them some five years previous, they could not come on account of the unusual depth of the snow. On the 1st day of March 358 *Utes* and 44 *Navajoes* reported, at which time rations and annuities were issued them, sufficient of the annuities being reserved for those unable on account of snow to come to the agency. On account of the snow and almost impassable condition of the roads, it was impracticable for the Indians to bring their tents and camp equipage, and they remained but five days here. Upon their departure they demanded rations to the amount of a four weeks' issue, saying they could not return before that time. The Indians manifested a bad spirit, on account of the arrival in the mean time of Lieutenant Valois, with a detachment of 15 men of the Ninth Cavalry, for the purpose of investigating certain alleged Indian depredations; and in consultation with Lieutenant Valois, both in consideration of the inclemency of the weather and bad condition of the roads and our inability under the circumstances to enforce them to comply with regulations, it was deemed the best policy to comply with their demands. These Indians did not return until the time had elapsed, at which time another like demand was made. They were again much irritated by the presence of the detachment at the agency, which in the mean time had returned to Tierra Amarilla, N. Mex., and had come back on account of a well-grounded report of an outbreak between the Utes and Navajos. The rumors and con-

stantly repeated fears of an Indian war and the bad spirit shown by the Indians again resulted in yielding to this demand.

Upon their next arrival they attempted the same thing, and I closed the storehouse having been assured by Major Morrow, commanding a battalion of the Ninth Cavalry, that he would render every possible assistance to enforce the Indians to comply with orders, and that his command was able to cope with them. About this time General Hatch made a visit to this section of the country, when Ignacio lodged complaint against the agent for not issuing him sufficient rations. General Hatch, upon request, did me the honor to call, when in his presence and that of others I had an individual ration for one week weighed out. Ignacio replied it was very little. General Hatch told him he must accept what the government allowed him. In a few days the Indians returned, and regular weekly issues to families and individuals have since been made without the former excessive demands. The ration allowed is barely sufficient where there are comparatively so few children, and especially is this the case where nothing is gained by the chase.

CONDUCT OF THE INDIANS.

Beyond the excessive and violent demands for rations and the threat of taking the life of the agent for establishing the agency on the Rio Pinos instead of the Rio Navajo, as they claim to have been promised it there, there is but very little in their conduct to be condemned. I blush to say aught about this when I reflect upon how they have been treated by the government and imposed upon by individuals. The almost incessant alarm of war since I have been here has but little if any foundation, as the investigation by Lieutenant Valois, in which I accompanied him, proved. But I am grateful, however, for the presence of the military in this vicinity, because it averted, as I have reason to believe, a war. I would be loath to arraign an entire community or settlement upon the charge that it would bring about a war, but I do not hesitate to say that there are not a few communities on this Western frontier who have the honor of being graced with individuals possessed of these admirable qualities which are capable of imposing upon poor Indians to such an extent as to make a military post a necessity. No class of individuals are more liberal in circulating their hard-earned money than the rank and file of our Army. They are fond of butter and eggs and vegetables. Their horses also like the grain. It is preferable to be at war than to be without money.

CATTLE ON RESERVATION.

Experience has proved that the slope into which this reservation has been thrown is exceedingly unfortunate. A strip of ground fifteen miles wide, with herds of cattle from both sides pouring in upon it, eating up all the grass, is no place to keep Indians. I have twice addressed the department with regard to this matter as to what course to pursue, but have received no reply.

OBTAINING NAMES AND NUMBER OF INDIANS.

The effort to obtain the names and a correct enumeration of these Indians has been a laborious and difficult task. The Capote and Weeminuche bands, especially the latter, avail themselves of every strategy to avoid disclosing their names and numbers. Four attempts have been made, and especially to procure the names of the heads of families, in order to complete a proper census roll, as well also to effect the necessary arrangements for individual and family issues, but in vain. The following is a schedule of the number of Indians who have reported at this agency since March 1, 1878:

Date.	Men.	Women.	Children.
March 1	172	110	110
March 16	6	14	6
April 2	4	34	29
May 20	60	58	36
June 17	15	54	78
Total	257	270	259

This enumeration includes forty-four Navajoes who reported with the Utes March 1, 1878, only a few of whom have been at the agency since that time. Of the 147 who reported from the Abiquiu Agency June 17, sixteen were recognized as having been heretofore here. This count may include some "repeaters," owing to the fact that in such a brief period of time it is impossible to recollect all, and in this I was guided by Mr. Juan Baldes, who was interpreter from March 1 to May 10, and who has been familiar with these Utes for the past fourteen years. I have good reason, however, to believe that we have had some of those who are among the number enumerated from the Los Pinos Agency.

ARRIVAL OF THE MUACHE UTES.

On the 15th instant, Inspector Watkins and Dr. B. M. Thomas, agent for the Pueblos of New Mexico, arrived here with about fifty men, including the larger boys of the Muache band of Utes, having departed from Cimarron, N. Mex., July 18, with 148 Indians of said band. On account of being wearied with the march, the remainder, chiefly women and children, were left at the Rio Piedra, some thirty miles distant, and will report here at furthest in two or three days.

CONDITION OF THE INDIANS.

These Indians possess a large number of horses, and strive to increase this kind of stock, too much of which they already have. A few families have a respectable number of goats and sheep. Cabazon is said to have a number of horned cattle, but where they are held I have never been able to discover. I have repeatedly and kindly brought to the notice of these Indians the subjects of labor and education, but they have steadfastly refused to do any labor, to have schools, or make advancement in any direction. Our talks concerning these affairs have always ended in bad feeling, and so long as the children are allowed to remain with their families nothing can be effected for their moral and intellectual improvement. Nothing short of industrial boarding-schools will bring about the desired result.

MISCELLANEOUS.

On the 30th of May I requested the Indian Office to relieve me at once of my duties here, and again on the 15th of July addressed the honorable Commissioner, declining my reappointment, and demanded that I be relieved at the earliest possible moment, on the ground that the salary allowed the agent at this agency did not justify my remaining there. It is expected that in a few days at furthest my successor will have arrived.

In anticipation of early taking leave of this agency, I desire to express my sincere thanks to the faithful and efficient employes who have stood beside me in what, without exaggeration, might be called trying times, and who have remained here without pay and without murmuring. I shall never again, under any circumstances, make a like request, because it is gross injustice to withhold the wages of men who support themselves by honest labor. My hearty thanks are also due Lieuts. G. Valois and B. F. Taylor, Ninth Cavalry, for courtesies rendered.

On the 15th instant, the Ute special commission, consisting of General E. Hatch, N. C. McFarland, esq., and W. S. Stickney, secretary, accompanied by Lieut. C. A. H. McCauley, Third Artillery, arrived for the purpose of negotiating with these Utes for their removal from this part of the Ute Reservation. Arrangements have been made to hold the grand council on the 22d instant.

Very respectfully, your obedient servant,

F. H. WEAVER,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

WHITE RIVER AGENCY, COLO.,
July 29, 1878.

SIR: I inclose herewith blanks, filled out, of a statistical report for the past year which is substantially but not critically correct, because I have been here only two months, and have depended much on the documents of the office, not on personal observation. What I shall say further is derived from visible observation during these two months.

Agricultural industry is without organization, both on the part of the government and the Indians, although considerable money has been expended. One field of 20 acres, three miles from the agency, was sown to wheat last year, but it was wholly destroyed by grasshoppers and prairie dogs, as if in a single day. The fence, constructed with cottonwood posts, was so badly down on my arrival, May 15, 1878, that it was abandoned, and nothing was planted; besides there was no kind of seed.

A field of 3 acres and one of 2 acres were planted to potatoes by Indians, who dropped the seed in furrows plowed by employes and the same plow covered the seed. After that the Indians did not appear in the field, for they went off hunting, and except in one case have not returned. I understand that, agreeably to the rule previously established, these Indians will appear in the fall and proceed to dig the potatoes, or at least help, and claim the whole as the result of their labor, although the employes plow, hoe, and perfect the crop without their assistance in the least.

The case excepted is that of a man who shot himself in the leg and was obliged to return, as he could not hunt. The ground was new land on the bottom, naturally requiring little irrigation. It was sowed to beets, turnips, carrots, pease, and the like, largely by the help of the wife of the late agent assisting the wife of the disabled

hunter. As I saw the ground growing up to weeds, I myself hoed it out several times, and, as the season was unexpectedly dry, I carried more than a hundred pails of water, whereby the whole was brought into a most thrifty condition. When they returned, after an absence of six weeks, the wife visited the garden, expressed surprise and admiration, and said she was "much obliged" to me, for she can speak English. Naturally, I had supposed they had wholly abandoned the garden, and, as I had none, I was expecting some of the products, but they have entered upon possession, and I have no vegetables of any kind. From this, I now easily understand why, on several occasions, the Indians have laughed at the employés while growing the crops mentioned. Of course, this style of Indian farming has, under my administration, come to an end.

Authority has been received for removing this agency to Powell's Valley, 20 miles below on White River, where about 3,000 acres of level land of superior quality can be had in a solid body. One hundred acres will be plowed this season, and fenced in the spring; an irrigating canal several miles long is to be built, and the agency buildings will be so centrally located that the fields will be under easy superintendence. It is intended to make farming under such conditions profitable to whoever will work, which ought to furnish inducements to some of the Indians at least. Hitherto, they themselves must have seen that operations were on such a limited scale that it could not pay them to work, for they would make more in hunting, while it was a species of entertainment to see the white employés act as their servants.

It is extremely doubtful whether the majority of adult Indians can ever be induced to labor; but it is true that three or four young men have learned to do several kinds of work, such as caring for cattle, driving team, chopping, &c. But the prevailing sentiment of Indian "society" is decidedly opposed to all kinds of labor, and it is now over a year since any of the young men would accept the offer of \$40 a month cash as common laborers. In one case Chief Douglas forbid a young man fulfilling a contract, at good wages, to drive a team from Bear River to Denver for a merchant, saying, "White man work; Indian no work, but hunt." After the Indians shall have a chance to work at a profit, and in sufficient numbers to form society and opinion of their own, and also after the chief shall come to a different state of mind, the question will be on the way to a solution. The probability is that a fair portion, especially of women, will be willing, and even glad, to accept the situation, and grow food for their families.

Hunting is a leading and chief pursuit. "Buckskin" is sold to the traders in heavy aggregate amounts, and is hauled to the railroad by the ton, a ton being worth \$1,000. When to this resource are added annuity goods and weekly issues of beef, flour, sugar, coffee, soap, &c., it is seen that these Indians are placed in a comfortable position.

The agency herd numbers 1,500 head, cared for almost wholly by white employés, and it has proved a decidedly profitable interest. The Indians have frequently been requested to have a division of the cattle made among the families, but they steadily refuse. However, about 30 cows are kept by them, and they learn to milk and make butter and pot-cheese, which they relish highly, but whenever the hunting season comes they do not hesitate to leave the cows in charge of the employés, always claiming them on their return.

It is evident that the facility with which the Indians get ammunition off the reservation is an obstacle to their engaging in rural pursuits. It is true that in the sale of ammunition the law is violated, but the agent has no power to prevent the sale. The issue of duck, ticking and denim as annuity goods furnishes them with houses easily moved to remote mountains, and the inducements to live in fixed habitations are hereby diminished; in fact, hereditary habits are more strongly established.

The progress in education is not marked. Hitherto young men have been boarded and clothed and instructed, and they learned readily, and some write their names quite legibly; but the means in the hands of the teacher were limited, the school-room was rude and uncomfortable, and now all of them are off to the hunting grounds. The plan now is to take young children, give them the care of a mother, and have them constantly in hand.

The standard of health among these Indians is low, and the average duration of life must be considerably below that of the whites. The prevailing disease is generally supposed to be communicated by soldiers and sailors, but as there are no half-breeds this disorder must have originated among themselves.

These Ute Indians are peaceable, respecters of the right of property, and with few exceptions amiable and prepossessing in appearance. There are no quarrelsome outbreaks, no robberies, and perhaps not half a dozen who pilfer, and these are well known. The marriage relation is strictly observed, at least for the time it continues, and polygamy is practiced to but a limited extent. On the whole, this agent is impressed with the idea that if the proper methods can be hit upon they can be made to develop many useful and manly qualities and be elevated to a state of absolute independence.

N. C. MEEKER,
Indian Agent, White River.

The COMMISSIONER OF INDIAN AFFAIRS.

CHEYENNE RIVER AGENCY, DAKOTA,
August 14, 1878.

SIR: Conformably to your circular-letter of July 1, I have the honor to submit the following annual report of this agency, of which I assumed charge on the 28th of March last, by virtue of Special Order No. 30, current series, headquarters Department of Dakota.

LOCATION, NUMBERS, TRIBAL RELATIONS, ETC.

The agency is located on the west bank of the Missouri River, six miles from Fort Sully, the nearest telegraph station. By river, Yankton lies 371 miles below and Bismarck 250 above it. The Indians depending upon this agency are of the Minneconjou, *Two Kettle*, *Blackfeet*, and *Sans Arc* tribes of *Sioux*. Their number, as ascertained by Lieutenant Hoyt, Eleventh Infantry, who took an accurate census of them in January, 1877, has not materially changed since, save by the transfer in February last of fifty Minneconjoux from Red Cloud to this (their proper) agency.

The following abstract from the issue-book may be relied on as in the main correct:

Band or tribe.	No. of families.	Men.	Women.	Children.	Total.
Blackfeet.....	44	47	80	96	223
Sans Arc.....	62	74	119	141	334
Minneconjou.....	100	140	188	223	551
Two Kettle.....	164	201	297	419	917
Total.....	370	462	684	879	2,025

The Cheyenne River Indians are greatly scattered, their villages extending from the mouth of the Moreau River, 60 miles above, to a point 50 miles below the agency. The great majority live in five villages on the west side of the Missouri River, three of which are above and two below the agency; only about one-seventh of the entire number, the most progressive, are settled at Peoria Bottom, on the east side, 15 miles below Fort Sully. Although the Indians are enrolled on the ration-book by bands, tribal organization retains but a loose hold and is fast breaking up among them. In the same village representatives from all the bands may be found, a fact which is, of course, fatal to the system of chieftainship, which continues to exist in name only.

CONDITION, HABITS, AND DISPOSITION.

When the Eleventh Infantry came here in September, 1876, even the so-called friendly Indians were rarely seen about the agency, except in armed and mounted parties; they were often defiant in their bearing, and habitually sullen, arrogant, and insolent in their demeanor. Quarrels among themselves and with whites, sometimes resulting in bloodshed and murder, were frequent, and unreasonable demands upon their agent and others, backed by a menacing attitude and show of force, not uncommon. Work was shunned, and a close adherence to their barbarous customs, savage style of dress, and pagan superstitions prevailed.

Since the time stated there has been, in these respects, a marked change for the better, mainly brought about, as I firmly believe, by the act of the military in taking from them (during October, 1876) their arms and ponies, save a sufficient number of such of the latter as were suitable and necessary for farming purposes. Although this act was at the time and has since been vehemently denounced by persons inimical to the Army as an unwarranted invasion of the rights of property, &c., it has proved to be an unqualified blessing to the Indians. That the latter parted reluctantly with their arms and horses was quite natural, but the sooner the fact is recognized that the Indian is not always the best judge of the measures calculated to ameliorate his condition the better for the Indian. Leaving out of view at present the disposition made of the seized animals, which will receive notice farther on, it is an indisputable fact that the possession of a multitude of ponies and arms, useless except for war and other lawless purposes, constituted the greatest hinderance not merely to the Indians' pacification, but also to their being civilized. Whereas formerly they were a turbulent, quarrelsome, unruly set of beings, they have now become comparatively quiet, peaceable, and tractable. Since the seizure of their ponies and arms have deprived them of the means to go to war and checked their migratory disposition, their energies have been forced into other and better channels; labor is no longer looked upon as degrading, and civilized pursuits are engaged in, and the white people's style of dress adopted by some of their number who at one time were the most turbulent spirits. The constant habit of going armed and galloping about in an aimless and reckless manner has ever been one of the most fruitful sources of mischief among Indians no less than in white frontier communities. The effectual suppression of this injurious practice among the Cheyenne River Indians must be regarded as an important step in their progress toward civilization.

CATTLE-RAISING.

The raising of crops being attended with great uncertainty in this climate, stock-raising must be mainly relied upon for the future self-support of these Indians. They are natural herdsmen, and their reservation is well fitted for this branch of industry. The stock range is practically unlimited, and large hay crops may be easily gathered for the winter season, which is not usually severe here.

The seizure of their ponies, already referred to, has enabled them to make a successful beginning in cattle-raising, which, if properly fostered, will render them in four or five years, to some extent at least, independent of government aid. From the proceeds of the sale of 1,936 head of ponies and colts, largely consisting of broken-down stock, about \$9,000 was realized. For this amount 450 milch-cows and 5 bulls were purchased at Yankton, and thence brought in September last to this agency by Lieutenant Mansfield, Eleventh Infantry, who was so careful in the management of the herd under his charge that he actually carried a foot-sore animal in a wagon for some distance. In the beginning of October the cows were issued to the Indians, at the rate of four to every 17 persons, and one bull was given to each of five camps or villages. A careful count of these cattle made by Lieutenant Brown, Eleventh Infantry, about a month ago, shows that only 5 of all the cows had died, that none had been lost or killed for beef, and that the increase from calves born had then amounted to 350, all of which were doing finely. At an inspection of the horses in possession of the Indians made in February last 248 head, including colts, were found to be unbranded and in excess of the 450 allowed them for farming purposes. These surplus animals, being in better condition and reaching a market at a more favorable season of the year, brought in Yankton, where they were sold at public auction, about \$4,700, or the respectable average price of \$19 per head, for which 200 cows and 4 bulls were bought. When these cattle, which are now *en route* for this place, shall have arrived and been issued, there will be in possession of the Indians 9 bulls, 644 cows, and 350 calves, giving to each family at least one cow and to the majority two or three.

That the Indians have taken excellent care of their cows is apparent from what has been stated. Their interest in them is great and increasing; they are very fond of the milk, and a number are beginning to make butter. Each family is also providing for the winter an adequate supply of hay. In view of these facts it is earnestly recommended to the department that every dollar that can be spared from their share of appropriations for the Sioux, not set aside for any specific purpose, be used for the purchase of stock cattle for them. The fact that they already own a number of such cattle, obtained through the seizure of surplus ponies (which the Indians of other Sioux tribes less peaceably disposed have been permitted to retain) ought not to stand in the way of their receiving more, provided such other tribes have stock cattle issued to them. Otherwise the familiar saying that "many favors are bestowed upon the troublesome, and but few upon the obedient and tractable Indians, by their Great Father," would receive renewed exemplification in the case of these people.

AGRICULTURE.

Farming is yet in its infancy among the Indians of this agency, but some progress in it during the past year can be noted. On taking charge I endeavored to impress them with the importance of doing all they could in this direction, and the great majority evinced a commendable desire to begin at once; but all complained that they lacked the requisite means for farming, especially breaking-plows and working-steers, their ponies not being sufficiently strong for turning new land. What assistance the very limited resources of the agency afforded was given, and all employes that could be spared were sent to their camps to instruct them. About 150 acres of new land were broken last spring, which with the land heretofore cultivated were principally planted with corn, less than one-third having been seeded with potatoes and other vegetables. The season thus far has been a favorable one, late rains, unusual in former years, having greatly benefited the growing crops. From potatoes, owing to the ravages of the potato-bug, not much is expected; but onions and the smaller vegetables yielded abundantly, and were greatly relished by the Indians as a welcome change in their monotonous diet. Squash and pumpkin, of which they are very fond, will soon be fit for use, and look very promising. From present indications the yield of corn, not yet matured, will aggregate about 2,500 bushels, an average of 12 bushels per acre.

The progress of these people in the way of opening of farms by individuals is materially hindered by the feeling of uncertainty induced by an agitation, from time to time, of the subject of removing them and the agency to a more suitable location, or of the consolidation of this with some other agency more favorably located for agricultural pursuits. To this feeling mainly is to be attributed the fact that with but few exceptions all farming by Indians on the west side of the Missouri has been carried on in partnership, half a dozen or more families cultivating the same field. It is easy to be seen that under such conditions farming cannot well be brought to any degree of perfection, as individual effort is paralyzed by the knowledge that the shiftless and indolent will share equally in the harvest with the thrifty and industrious.

It is generally believed that these Indians would do better if they and their agency were transferred to the east side of the Missouri River, where a part of their number are already located. While for grazing purposes there is probably but little difference in the relative value of the land on the two sides of the river, for agriculture the section on the east side of and bordering the river is in every respect preferable to that on this (the west) side. The soil is more fertile; there is less alkaline matter in it. The area of tillable land is much greater, and generally the shelter afforded on the eastern side is more extensive and easy of access than that of the bluffs opposite. If transferred, the barrier that would be formed by the river between the reservation and hostile Indians would be an advantage in a military point of view, the 200 miles wide and waterless district lying between the white settlements of Eastern Dakota and the narrow strip of land on the east side of the Missouri, proposed for occupation by the Indians, rendering inroads of the latter upon the former well-nigh out of the question. And aside from the physical difficulty, not to say impossibility, of such inroads, none need be apprehended if what should and might be done were done—the settlement of these people upon permanent homesteads. The question of removal has not been raised by me. Much can be said in favor of it, but its decision one way or the other ought not to be deferred long. Delay in a matter so vitally affecting their interests would prove to be a great injury to the Indians.

INDIAN LABOR.

A few weeks after relieving my predecessor I determined to make an effort to carry out the policy of the department to have the agency work done as far as practicable by Indians. To this end two white laborers, receiving each \$50 per month, were discharged, and 6 Indians—4 laborers and 2 apprentices—hired in their stead, at an aggregate amount of \$60 per month. On the whole the experiment has been successful, and although several of those hired at first did not prove satisfactory and returned to their camps, their places were easily filled by more competent and persevering Indians, and a still further reduction of the white employé force has since been effected.

The haying season, which usually begins here early in July, was interrupted by two weeks' rainy weather in the latter part of that month. Scythes having been issued from the agency; nearly all the Indians have been and some are still at work laying in a winter's supply of hay for their stock, for which purpose it is estimated about 2,500 tons in all will be stacked.

A year's supply of hay (60 tons) for the public animals has been cut, hauled, and stacked by Indians at a cost of \$6 per ton. Last year \$10 per ton was paid the Indian trader, who had the contract, for hay very much inferior to that furnished by Indians this year. Whenever the transfer of freight from the steamboat-landing to the warehouse, or any other exigency, has rendered extra help necessary, Indians have been hired and paid in subsistence.

It is to be regretted that not more employment of the kind described can be found for the Indians, a great proportion of whom are always willing to work at very moderate compensation. If at all practicable I would urge favorable action upon the recommendation made by Inspector Hammond in his last year's report, namely, that along the Missouri River all hay and wood required by the government for military or agency use, and all fuel needed by steamboats, be supplied at a reasonable price, to be fixed by proper authority, by Indians, through their agents. That this scheme would not fail from the disinclination of the Indians to do the work I feel assured.

EDUCATIONAL AND MISSIONARY WORK.

The agency is under the care of the Protestant Episcopal Church, which maintains on this reservation, partly with government aid, three mission stations and schools under the charge of the Rev. H. Swift. Besides these the Presbyterians have two stations here, under the direction of the Rev. T. L. Riggs, to whose instructions much of the progress of the Peoria Bottom Indians is doubtless due. Mr. Swift has been zealous and earnest in his work. His report is forwarded herewith.

SUPPLIES.

The supplies on hand have generally warranted the issue of the full regulation allowance, which, in my opinion, is quite sufficient. In several instances where, through the delinquency of the contractor, the supply of beef-cattle ran out, the full equivalent of beef in other parts of the ration was given. The system of issuing to heads of families being the only fair way, requires no recommendation. It was first put into active operation at this agency in the spring of 1877 by direction of Col. W. H. Wood, Eleventh Infantry, commanding post and district, who insisted that it should be strictly carried out in every particular. As Indians, like most ignorant people, are very suspicious, the post commander has, at my request, directed an officer to verify the weights of all supplies issued to them. The fact that this officer is thus enabled to test the correctness of all issues, affords at all times a protection against the charge of unfair dealing so liable to be made and so frequently brought against Indian agents.

SANITARY.

Dr. Weirick reports the sanitary condition of the Indians as improving, though still far from satisfactory. He states that consumption and scrofula are the prevailing diseases among them; but that since April 1 last, when he first assumed the duties of agency physician, not a single case of venereal infection of any kind has come under his observation or treatment. This latter fact is especially noteworthy in view of the presence at the agency of a considerable number of troops and the oft-repeated charge that soldiers are the propagators of vile diseases among the Indians. Dr. Weirick expresses the belief that the native medicine men are now but rarely consulted by the Indians, who generally come to the agency for treatment and medicines.

CONCLUSION.

In conclusion, I would give it as the result of my experience with these and other Indians that their management should be characterized by great firmness, as well as uniform justice and fairness. Few promises should be made to them; none unless easy and certain of fulfillment. General councils among or with them subserve no useful purpose, but are almost invariably productive of much harm. As their ideas upon most subjects affecting their welfare are necessarily crude, they should be taught and made to yield their views to those of the persons placed in authority over them by the government upon which they rely for support.

In my efforts to ameliorate the condition and advance the interests of the Indians under my charge, I have had the hearty co-operation of Col. Wm. H. Wood, Eleventh Infantry, the commanding officer of the military post contiguous to the agency buildings; and his advice, support, and assistance, at all times cheerfully given, have been of great advantage to me in the performance of the difficult, perplexing, and harassing duties of Indian agent.

Very respectfully, your obedient servant,

THEO. SCHWAN,

Captain Eleventh Infantry, Acting United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

Report of missionary at Cheyenne River agency.

SAINT JOHN'S MISSION, August 15, 1878.

SIR: A constant residence among the Sioux of this agency for the last six years, and most of that time right among them, has given me, perhaps, a greater opportunity to notice their growth and progress than falls to the lot of most who reside upon the agency. Their condition when I first saw them was as follows:

Dress: With about five or six exceptions, wild, blanketed, painted, and armed. *Customs:* Dances and wild, savage ceremonies were going on all over reservation. The men and young men spent their time in these and in extravagant feasts, gambling, and idleness. *Habits:* Extremely filthy in dress and eating; saucy and turbulent; war parties were constantly going off. Every spring a large hostile element disappeared and did not return till annuity time. The women did most of the work; wood and water were hauled by them, and much of the field work, while the plowing was done by agency employés as a general thing. *Friendliness:* A small portion was well disposed, while the majority were unfriendly, treacherous, and many dangerous. *Religion:* Thoroughly heathen; the worship of the sun, the earth, and the spirit of mischief (called Heyoka) being their cultus. *Education:* None.

Their present condition may be characterized as follows:

Friendliness: Excellent; the hostile element is driven out, or cowed.

Dress: Many have assumed citizens' clothing, and almost all would, if they were able, cast off their savage attire to-day. Arms are no more to be seen, thanks to the measures of the military.

Dances are being repressed by the sentiment of the Indians themselves; a minority still endeavors to keep them up. Their continuance tends to keep Indians wild and idle and extravagant. The rations furnished by government for support of their families is wasted, and the children suffer for food while the men feast. I think that now dances could be repressed without exciting any ill feeling.

Industry: The men and young men are far, still, from equaling whites in industry. Still, almost all do work, and are not ashamed to work. What they chiefly need is oversight and instruction in their several camps. The men chop and haul wood and haul water. Very many live in houses, and the chief reason why some retain the tipis is that there is no lumber at hand with which to build. They are cutting hay all over the reservation, while their fields are better taken care of and more productive than in past years. The young men are more tractable and willing to work, and anxious, in many cases, to learn and excel.

Cleanliness : There is a great improvement here in every way, both in dress and at table ; the women and girls who have had the opportunity to learn being very neat in attire and habits.

Education : Notwithstanding desultory attendance of many, still much has been learned, and there are some hundreds who have a greater or less knowledge attained in schools, and many who, while never having attended school, have learned from other Indians, and taught themselves to read and write. The general desire for children is to learn English, and have English-speaking teachers, while the young men and women wish to learn Indian only.

Religion : Heathenism is no longer in the ascendant ; large and reverent congregations attend our three mission services ; a goodly number are professed Christians and communicants, and the church is quietly and steadily growing.

In general terms I would state that these people are, in my opinion, what the Yanktons were six years ago ; while, when I first came among them, they were in the main simply savages.

Causes of improvement : There was considerable progress made in the first two or three years of Major Bingham's administration. But until the severe measures of 1876 were inaugurated, the hostiles were powerful, and repressed the better element. Their subjugation has enabled better feelings and better principles to rule and predominate, so that advance in educational, spiritual, and industrial directions has been very marked since then. The present temporary military charge of the agency has been productive of the best results in every way, and I feel that the interests of the Indians have been advanced in every way by it, both in bodily and mental improvement.

Respectfully,

H. SWIFT.

CROW CREEK AGENCY, DAKOTA,
August 25, 1878.

SIR : I have the honor to submit the following as my annual report of the condition of the Indians and the state of the service at this agency, pursuant to office circular of July 1, 1878.

I took charge of the agency on the 22d of March last, in obedience to Special Orders No. 30, Headquarters Department of Dakota, March 13, 1878, issued at the request of the Department of the Interior.

The number of Indians present at the first issue after I took charge of the agency was 751. By the 1st of July the number had increased to 833, and at the present time the total number at the agency is 859. Twenty-five lodges of the tribe, numbering probably 70 or 80 souls, are still encamped on the James River, about 80 miles northeast of the agency, where they have been for the last three years.

In the early part of the present month I visited this camp and held a council with the chief and headmen, and urged them to return to the agency. The chief alone seemed indisposed to return ; the others appeared to be indifferent, but neither opposed nor advocated the chief, who asked for a delay until he could consult with the principal chief at Sisseton Agency. I gave him six weeks' time in order to enable him to husband his crop, which is large and well cultivated, but assured him that unless he returned to the agency in the beginning of September I would bring him in. Since then several of his people have come in of their own accord.

I am informed also that a portion of this tribe, said to be about 169 families, is now at Standing Rock Agency. These I believe never have been present since the agency was established, but I learn from them that they are anxious to rejoin the main body of the tribe and live here. I consider that it would be advisable to encourage this intention, as their separation will be a perpetual excuse for the unsettled ones to absent themselves from both places on visits, which is the case at present.

CIVILIZATION.

The *Yanktonnais* have been on this reservation now thirteen years, yet the majority of the people are but little removed from the nomadic state, the few who are reclaimed having been won over wholly by the exertions of the missionaries within the last few years. The labors of these good people have been faithfully prosecuted in the face of extraordinary difficulties and discouragements, but is at last beginning to exhibit gratifying results. Many of the principal families of the tribe have recently agreed to break up the village autonomy, and take up and settle permanently upon small farms, and thus establish homes and family independence. Two of the chiefs have joined in this project, and are now preparing to put it into execution with all the people of their bands in the neighborhood of the Great Bend. Seven families from the lower camps lately left the village at Elm Creek also and moved out on that and

Crow Creek, a few miles, and are now permanently separated from tribal influences, and have to a great extent abandoned tribal usages and superstition. These, I think, will in time be followed by others, and ultimately the village organization will cease to exist.

As yet, however, the great majority of the tribe are obdurate savages and wholly under the influence of those of the chiefs who find civilization and industry uncongenial. These still retain the barbarous customs and cherish the superstition and traditions of the former time, and even very frequently resort to menaces and aggravating outrages toward those who show any disposition to adopt the methods of industry or the Christian faith. This persecution is often carried to such a degree that it becomes insufferable, and unless the agent is known to be resolute enough to invoke the power of military force he must frequently consent to suffer humiliation and disappointment in witnessing the undoing of the result of his own labors and of those of the missionary people associated with him. Polygamy, the sale of women, their utter social degradation in the married state; sun-worship, and the heathen practices of "making medicine," are native vices that are still as firmly rooted among the people of this tribe as they are among those of the wildest tribes.

I do not think that it would be beneficial to extend the laws of the United States over these Indians at present; certainly as long as they are permitted to retain possession of their arms it would be useless to attempt to govern them by laws, for these two forces are wholly incompatible among a savage people, who have never known or recognized any arbitration but that of arms. Arms and horses constitute the wealth and strength of an Indian tribe, and while it is permitted to retain these as a war establishment, scarcely a sensible impulse can be given to the settled policy of the government in either civilization or the propagation of the Christian faith, nor can these people be compelled to be induced to acknowledge their dependence upon, or their gratitude to, the government for its bounty and protection.

AGRICULTURE.

When I took charge of this agency I found on the reservation 79 habitable houses occupied by Indians; since then 15 more have been completed. Thirty-six acres of land had been broken for the tribe, and cultivated. The agency farm consisted of 142 acres. This was subdivided and allotted to the Indians, who planted and indifferently cultivated 65 acres of it. Thirty-one and a half acres of new land were also broken for them, the work having been done mostly by themselves, and all of which, except two acres, was planted. The season has been exceedingly favorable for crops here, notwithstanding which the percentage of subsistence produced by their own labor is scarcely appreciable. Of corn, which is the principal product of Indian agricultural labor, something over 2,000 bushels would have been produced had it been permitted to mature; it is generally gathered while yet green and dried for winter use; 494 bushels of potatoes were issued in the spring, about one-fifth for seed, yet only about 20 bushels were planted, the rest having been consumed. A sufficiency of other seeds were supplied and were planted, but for lack of proper cultivation the product will be very insignificant. In addition, everything produced is gathered so long before it matures that no material benefit is derived from it. This is partly due to ignorance, and partly to save it from the poaching vagabonds of the tribe who will not plant themselves. Those who plant independently and apart from the chiefs and the tribe especially suffer from the depredations of this class.

One of the greatest difficulties experienced in successfully introducing agriculture among the Indians is that of properly fencing the crops against cattle and ponies. This is referred to more fully in my report from Lower Brulé. I think it would be economical for the department to supply fence wire from the annuity funds of each tribe. This is indestructible and cheap. The present expenditure for fence rails is very considerable, and must greatly increase each year. A short calculation will show that the amount of money expended on rails for fencing in three or four years would purchase wire enough to permanently and effectually inclose the land on which the rails are annually expended. This would also put an end to numerous outrages arising from trespass by cattle and horses upon crops. Cattle and horses are killed and disabled every summer on both these agencies for this cause. This leads inevitably to retaliation and often to personal rencounters. Police measures necessary to prevent the short-comings and disorders enumerated above are impossible among a people where every man and boy goes armed.

The tribe has put up about 350 tons of hay, and about 100 more will be made. This is done by individuals and for their exclusive use. The work is done by themselves, with the assistance of one employé. The agency has stored 175 tons of hay made by the employés assisted by a few Indians; 100 tons more will be cut and stacked, to be fed in the spring to the herd to be wintered near the agency; 52 acres of corn, 3 of potatoes and 17 of oats were cultivated by the employés in addition to their other labors.

EDUCATION.

There are three schools and three churches on the reservation. One of the former is the boarding school at the agency, and is constantly filled to its capacity. It is so well and so successfully conducted that I have only to say of it that it should be enlarged to at least three times its present establishment. What I may report of the camp schools is stated under this head in my report from Lower Brulé. No amount of perseverance and energy on the part of teachers and missionaries can fully overcome the opposition and persecution of the disaffected and unfriendly portion of the tribe to education and the introduction of the Christian faith. Coercion is at once a natural and justifiable remedy, but I doubt that it would be profitable to attempt this process until these tribes are reduced to submission and dependence by other means than by treaties and promises.

THE RESERVATION.

The territory set apart by the government for the Lower Yanktonnais is rapidly being encompassed on the south and east by white settlers. This has recently given rise to an agitation in the tribe on the subject of the Yanktonnais title in that part of Dakota known as the James River country. It is claimed by the chiefs that the tribe jointly with the Yanktons occupied the country between the Big Sioux and Missouri Rivers since it left the head of the Minnesota River about thirty years ago, and that it never has relinquished to the government its title to this land. The Yanktons by a treaty dated April 16, 1859, ceded this territory to the government, and it has since been surveyed and opened for settlement. I recommend that an understanding be effected with the tribe on this matter, rather to abolish a standing cause of complaint than from apprehension of trouble, though the chiefs declare that they will not permit the occupation of the land by the whites without opposition.

THE AGENCY.

The agency proper consists at present of 27 buildings, all except 4 being inclosed by a stockade, which was formerly used as a defense by the troops posted here. The greater number of these buildings are so old and dilapidated that repair is hardly possible. The stockade is so much decayed that it is totally useless as a military defense, and will be removed as soon as possible. A substantial saw-mill was erected by the late agent last fall; also a new and commodious issue house. The latter, however, is so unsubstantial in construction that it is unavailable for storage.

A store-house was erected in June, at the landing $2\frac{1}{2}$ miles from the agency, for the reception and protection of supplies delivered by steamboat. This was constructed from old material found on hand and had no attendant expense.

A steam boiler is greatly needed to enable me to put the saw-mill in operation to supply the tribe with lumber necessary for fences, floors, and other improvements.

A chapel has been erected at the agency during the year by the Protestant Episcopal Church. Services in Dakota and English are regularly held by the Rev. Edward Ashley, the resident missionary. The assistance and co-operation rendered me by this gentleman in affairs connected with the tribe are worthy of a more substantial acknowledgement than I can bestow in this report.

It is with much pleasure that I testify to the prompt attention given my communications at the Indian Office, and to the regular and timely arrival at the agency by orders emanating there of the necessary supplies, of a superior quality, at the most economical rates.

I am, sir, very respectfully, your obedient servant,

WM. G. DAUGHERTY,

Captain First Infantry, Acting Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

DEVIL'S LAKE AGENCY, DAKOTA,

August, 1878.

SIR: I have the honor to submit this my third annual report relative to the affairs of this agency, the present condition of the Indians, and their progress during the past year.

TRIBES, NUMBERS, ADVANCEMENT, ETC.

The Indians of Devil's Lake Agency, numbering males, 519; females, 556; total, 1,075, are portions of the *Sisseton*, *Wahpeton*, and *Cut-head* bands of *Sioux*. Their reservation, lying along the south shore of Devil's Lake is beautifully situated, being bounded on the north by Devil's Lake and on the south by the Cheyenne River, and is one of the finest agricultural districts in Dakota; it also contains an abundance of meadow and grazing lands, with a sufficiency of good wood and water.

These Indians know the many advantages that their reservation possesses over that of the surrounding country, and understand the necessity of changing their past nomadic life to a more settled one, and turning their attention to a surer means of livelihood. Nearly every family belonging to this reservation is now engaged in agricultural pursuits; many of them have made commendable progress in bettering their condition and are adding yearly to their fields. None of the farms are worked in common; each family is located on a claim by themselves and separated from each other as much as possible. None of the farms are very large (ranging from 1 to 20 acres), but they are yearly increased in dimensions; land once broken is not allowed to return to weeds nor remain uncultivated. I am convinced that it is better to add to their fields gradually, just in proportion as they can conveniently manage, without over-taxing them, which, if done, soon discourages them; they then become careless, and often abandon the field entirely. Even with the small fields cultivated, these Indians are now successfully raising all kinds of vegetables that can be grown in this latitude, as well as wheat, oats, pease, barley, and buckwheat.

Forty bushels of wheat were sown this year, divided among eighteen Indians, aggregating about 25 acres seeded. The crop is good and has greatly encouraged them. This was the first wheat grown here by Indians, and now all are anxious to sow wheat another year. A large number of the Indians own cows, pigs, turkeys, and chickens, some of which have been purchased and paid for by the industry of the individual owners. Last year fifty milch-cows were issued to these Indians, and not one has died, and only one calf has been killed. The cows and young stock are well cared for and greatly prized by the owners. There are now seventy-five yoke of work-oxen and wagons owned by Indians of this agency, and I hope to soon see every head of a family supplied with the same, also with the necessary agricultural instruments. This once done, with a few reapers and threshers for general use on the reservation, will, in my opinion (judging from the change wrought in the past few years, and calculating on the same gradual advancement), place these Indians beyond the possibility of requiring any government aid after the treaty with them expires, which is June 30, 1883. They will raise this year about 60 per cent. of their subsistence, which certainly speaks well for the short time they have been engaged, as the first efforts at civilization upon this reservation were made in 1871, and but little was accomplished the first two years owing to their prejudice and aversion to labor, which had to be overcome by convincing them in various ways that labor was not so degrading as they had looked upon it to be. Now none are ashamed to labor, and in passing through the reservation it looks like a settlement of well to do frontier farmers, only the Indians' fences are more uniformly and substantially constructed than those of any frontier white settlers that I have seen.

The wood contract for the Fort Totten military post (571 cords) was filled by these Indians during the months of December and January last; the receiving officers gave them a complimentary indorsement, and did not reject one stick of the lot. They also stated on the vouchers given that the entire lot of wood was the best quality, and put up in better shape than was ever before received at that post. They have hauled 325,000 pounds of forage from Jamestown to Fort Totten during this summer for the military grain contractor, they receiving 65 cents per 100 pounds for the distance, 82 miles. They also transport all the Indian supplies from Jamestown to the agency. All persons seeing them at work on their farms, or freighting on the road, express surprise at their appearance. All dress like white men, and most of them wear their hair short, about 200 adult males having had their hair cut during the months of February and March last. Exclusive of the 571 cords of wood delivered to the military post by the Indians, they cut 630 cords for use of the agency and saw-mill, 324 cords of which they hauled to the school, agency, and mill. They also hauled 35 cords of stone for use in building foundations of new wings to boarding-school; cut, hauled, and built into fence 24,978 rails; broke 115 acres of new land, about 75 acres of which they planted, and plowed and planted 380 acres of old land, and have cared for their fields in a very satisfactory manner.

This season has been favorable, and our crops promise a large yield. We estimate our harvest, which is not yet gathered, as follows: Wheat, 500 bushels; potatoes, 10,000 bushels; turnips, 5,100 bushels; corn, 10,000 bushels; oats, 1,500 bushels; onions, 325 bushels; beans, 525 bushels; beets, 425 bushels; carrots, 210 bushels; pease, 100 bushels; buckwheat, 50 bushels; cabbage, 600 heads; pumpkins and squash, 10,300; and 1,000 tons of hay will be secured. The above is proof positive that these Indians are industrious, and I can also add that they are well-disposed. * * *

About a year ago two young men were induced to go into the blacksmith and carpenter shops, with a view of having them learn these trades. They worked irregularly for some months, but since the 1st of January last they have remained without intermission, and have become quite handy. They now do many small jobs of work. The one working at the blacksmith trade has learned to run the engine, of which he is very proud. He was married on July 1, ultimo, to a young Indian woman from the boarding-school. They are keeping house after the white man's fashion, and are getting

along very nicely. There are now two Indian boys learning the carpenter's trade, and both are making commendable progress. On the whole the Indians of this agency are contented and happy, and are on a fair way to prosperity, and only require proper recognition and encouragement to carry them through.

EDUCATIONAL AND SANITARY.

The boarding-school, under the charge of five Sisters of Charity, has been maintained throughout the year with satisfactory results; owing to a scarcity of supplies, a vacation was given on July 8, when 18 children remained at the school in preference to going home.

From August 25, 1877, to August 25, 1878, the average attendance for the year has been 38 pupils. This school is thoroughly systematized, and is doing a work among these people that cannot be too highly appreciated. The habits inculcated there exert a wholesome influence over all the Indians, and is much more perceptible in families whose children attend the school. The improved morals and steady advancement of these Indians in all civilized customs is very gratifying, and to these good sisters much is due for bringing about the happy change; it furnishes evidence of what good results follow a moral and religious training, such as is exercised by these patient teachers, who have ingratiated themselves with both old and young of the reservation.

Our school-building has been too small, and the rooms too much crowded for the health of the inmates, but during the early part of this summer we fitted the attic of the main building, which gives a dormitory, well ventilated, 18 by 38 feet. This, with two wing additions, each 26 by 40 feet, now in course of erection, will give ample room to admit nearly all of the children of school-going ages; but for the present we intend to use one of these wings for a hospital where the sick of the reservation can be brought for proper treatment.

The instructions in the school consist of reading, writing, geography, and arithmetic. The instructions are in the English language, excepting so far as it is necessary to convey a correct meaning of the studies. Apart from study in the class-room, there are regular hours set apart when the girls are daily instructed in all the household duties. Girls of all ages are received into the school, but boys only up to twelve years, and in some few cases fourteen years old are admitted. Outside of school hours the boys are instructed in manual labor so far as is consistent with their age and strength, but being small, their work is necessarily light and confined chiefly to caring for the cattle used at the school, carrying wood and water, and working in the garden. We have started a 40-acre farm attached to the school. It is well fenced and in a good state of cultivation; 10 acres of it have been planted this year by Indians for use of the school. This farm will soon be taken charge of by the Benedictine Fathers, under the direction of Rt. Rev. Abbot Martin.

One of the fathers, Rev. Claude Ebner, is now here in charge of the missionary work of the agency, and arrangements are made by which another father, and possibly two brothers, will join them in a short time, when they will open a school for boys of all ages, but more particularly to receive them after they have passed their rudimental studies at the sisters' school. It is also the intention of the fathers to instruct the boys in the use of tools of the different trades, as well as the labors pertaining to the farm.

The sanitary condition of the Indians (generally speaking) has been very good; still, the death rate has been unusually large, there having been 61 deaths during the year against 65 births. The mortality has been chiefly among children. The adult cases were principally from consumption. I am of the opinion, however, that the cause of so many deaths is that in their nomadic state these Indians were accustomed to an abundance of fresh meat; but upon this reservation they get none whatever during the summer months, and only a very little for about four of the winter months. They are also prohibited from buying any ammunition, with which they heretofore procured game. They could now procure geese, ducks, &c., on the reservation had they ammunition, but being deprived of both fresh beef and game, the change in living is so great that it is certainly injurious. I would recommend that these Indians be allowed to purchase powder and shot, and that a small allowance of beef be issued to them every fifteen days, even should it be necessary to discontinue the issue of some other article of supplies in order to do so.

The medicine-dance is no longer practiced upon this reservation, but the feast is still maintained by the greater portion of the Indians.

Polygamy is dying out, at least it is no longer popular; and with the exception of this one evil the morals of these people need not cause any solicitude.

CONCLUSION.

The proposed transfer of the Indian Bureau to the War Department is now and has for the past few years been agitating the public mind. All trouble with the Indians has of late years been attributed to their mismanagement; the Indian Bureau has been shamefully maligned, and Indian agents have been so vilified, misrepresented, and shamefully abused by the public press, that it is taken for granted by many that because

a man is an Indian agent he is necessarily a thief. This newspaper slandering has been allowed to continue so long that it has become almost a disgrace to be known in public as an Indian agent. The department, intending (undoubtedly) to better the service, has added to the unpopularity of agents by having Army officers appointed to inspect the deliveries at agencies. This has been of no benefit whatever to the service; but, on the contrary, the civil management with mixed military interference has disaffected the Indians to a considerable extent, by exciting suspicion in their minds and causing them to doubt the ability of their agents. Apart from this being humiliating, it is a source of annoyance to agents, who are often obliged to wait the pleasure of such officer's presence, with Indians, some from distant parts of the reservation, waiting for their supplies, who naturally get impatient upon being needlessly detained; and they, thinking that if their agent is a good man he should be all-powerful, always blame him for such delays. Aside from this, the natural inference is that the department has no confidence in its bonded and sworn agents, and that there is either a lack of ability or honesty among these civil officers, and by these appointments have conceded that Army officers are either superior in judgment, or more to be trusted and relied upon in protecting the interests of the Indians and administering the affairs of an agency. Indians, being close observers, are not slow to notice this, and soon lose respect for their agent, for Indians desire that their agent should know (at least) as much as any other white man around him, and with confidence once shaken in their agent, his usefulness to them is gone. With all due respect to the officers of the Army, I claim that there are to-day in the Indian service as efficient and honest agents as there are officers in any other department of the government, and that Indian agents are the hardest-worked, poorest paid, and worst abused officers now in the public service.

The present method of appointing agents is certainly an improvement over the old scheme of rewarding men for political services regardless of their knowledge of Indians, and the different religious bodies in nominating men for agents have undoubtedly selected good men, but that some should fail or fall short of what was expected of them is not to be wondered at when so many qualifications are necessary to be concentrated in one man. To successfully manage Indians and conduct a large Indian agency requires a man of extraordinary ability. He must be a business man, a farmer, and mechanic, together with a good judge of human nature, have great patience, and be endowed with practical common sense. Such a man, with his heart in his work, if left alone to manage his Indians, will succeed; but when set upon by designing whites who are always working up some imaginary charge or intriguing with disaffected Indians or disappointed whites to find fault with the agent, who is left alone to defend himself against all who may array themselves against him, with no encouragement or support from his superiors, being accountable, under heavy bonds, for the proper disbursement of large sums of money and property, obliged to keep complicated accounts under exacting rules, with a large amount of tiresome correspondence pertaining to the office, with a salary such as is paid to a second-class clerk—so much responsibility and labor for so little pay; no gratitude in the Indians, and no recognition or seeming appreciation of his efforts from the whites; never judged by his success, but the slightest error taken advantage of to injure him, there is certainly but little encouragement for a man to remain in the Indian service as an agent, unless he wishes to see his name appear in the newspapers on the slightest pretext, and be brought into ridiculous notoriety by every penny-a-line writer who lacks an article to fill his sheet or who is paid by the "em" for what he writes, regardless of its standard. While I admit that some agents have been found dishonest, and others have failed from incapacity, still I believe the majority to be conscientiously working for the best interests of the government in the elevation of the Indians, and for the good name of the religious body which they represent. I further believe that there is a better class of Indian agents in the service at the present time than ever before, and that the Indians have advanced more in civilization during the past eight years, under the policy inaugurated by President Grant, than in any other quarter of a century of our national existence.

There can be no question in the mind of any unbiased person but that the War Department is unfitted to civilize the Indians; of this the past history of the service furnishes sufficient proof. Could the Indian Bureau be organized into a distinct department of the government, having for its direct head an officer who would be entitled to a seat in the President's Cabinet, there is no doubt but that it would be more effective and the service be greatly benefited thereby; but as the creation of such a department is not very probable, the next best and only feasible means left for civilizing the Indians, and gradually relieving the government of this burden, is to let the Indian Bureau remain where it is and as it is at present organized. There might be some better rules of government subject to fewer changes, which, if properly administered, leaves no room for doubt but that the Indian tribes will continue to advance until they attain a much higher standing in the scale of civilization. The Indians must either fall in with the march of civilization and become independent citizens, or remain paupers upon the bounty of the government. To effect the first, the good work inaugurated has only to be continued; christianization and civilization will ultimately

follow; but place the Indians under supreme control of the military, and the opposite will be the result. It is therefore for the American people to decide which shall be done, and a righteous God will surely hold them responsible. Like all true friends of the much-oppressed Indians, I have strong faith in the peace policy as originally intended, which, with a thorough enforcement of the necessary laws through the civil departments of our government, and the service toned so that the office of Indian agent will be an honorable position, with the term of office contingent upon competency and good behavior, with salaries in proportion to the qualifications and service required, let dishonesty be punished through the proper channels, but do not allow every agent to be persecuted because some have been found guilty, extend jurisdiction of the United States courts over all Indian country, make some uniform and wholesome laws for the government of Indians, and the difficulties of this vexed Indian question will be nearer solution.

Very respectfully, your obedient servant,

JAMES McLAUGHLIN,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

FLANDREAU SPECIAL AGENCY,
Flandreau, Dak., August 10, 1878.

SIR: I have the honor to present this my fifth and last annual report, as my successor, Maj. William H. H. Wasson, is here, and will relieve me of my charge after this date.

THE GOVERNMENT PROPERTY.

on this agency is very limited, and consists of a school-house and the necessary furniture, together with a one-acre lot of land on which it stands. This is all. There are no employes' residences, or shops of any kind. The teacher has been accustomed to provide his own house to live in, the same as neighboring district-school teachers. And the Indians, not being provided with *free* shops, have found they could generally pay for their necessary tinkering. The school-house lot is well situated, adjoining the town of Flandreau, which is growing rapidly, and seems destined to be a place of considerable importance. The Indian farms are situated on either side of Flandreau, up and down the Big Sioux River, which here is only a good-sized mill-stream. The farthest live 10 miles away. Nearly all have so taken their claims that the river will run through them.

THE YEAR'S PROGRESS.

As will be seen by the statistical census just taken and inclosed herewith, these Indians now number 365, only one more than last year. Two or three families have moved here from the Santee agency, but about the same number, mostly half-breeds, have gone to a new settlement south of the Sisseton reservation, called White Earth. There have been four more deaths than births the past year—the deaths numbering 13.

In agriculture these Indians have made fair progress. Wheat is the best crop raised here. Last year I estimated their wheat at 4,000 bushels; when thrashed it turned out 5,000. It was an uncommon yield, averaging over 20 bushels to the acre. One Indian, named Philip Weston, had 300 bushels on 10 acres, from 12 bushels of seed. If the wheat would turn out as well this year, they would have over 10,000 bushels; but it is not so good. The wheat looked splendidly until about two weeks before harvest, when it came on such hot weather that the wheat blighted, and will not probably average over 12 bushels to the acre, and our estimate as made out from farm to farm foots up 6,767 bushels. The estimate for other crops is as follows: Corn, 2,180 bushels; potatoes, 3,780; oats, 120; barley, 650; beans, 133; pumpkins, 200. Grasshoppers are now injuring the corn, potatoes, and beans considerably, and I have reduced the estimate for them about one-third on that account. The Indians would also have had considerable of turnips and onions, but the grasshoppers have well-nigh taken them all.

There were no grasshoppers this year at all till after the small grain was all harvested, and then they did not come in such clouds as in some former years. They came from the west, probably from Montana, as notice was given of grasshoppers passing over Bismarck some ten days before they arrived at Flandreau. They are depositing some eggs, but not enough yet to do much damage. If farmers would make a united effort to destroy them in the spring, the crops might generally be saved from the young ones. In case they do hatch out in any great number, it would be well for the Flandreau agent to have some means at hand to expend in destroying them.

The Indians have broken 149 acres of new land, not included in the 755 acres under cultivation. They have built eight log cabins for themselves the past year, at no expense to government, mostly with floors, but dirt roofs. One, however, has a good shingle roof. The most valuable improvement, however, was the building for them

by government of eight frame houses, at a cost of \$350 each. Indians were employed to freight the lumber from the railroad, and to do the most of the carpenter work. I find the young men remarkably handy at such work, and think it is better to employ them than white men in all possible cases, as employment is the great desideratum of Indian civilization.

THE FLANDREAU INDIANS ARE CITIZENS,

and are, without doubt, the most advanced in civilization of any portion of the Sioux Nation. They pay taxes, and very cheerfully, considering how high, we might say how exorbitant, some of them are. Their total taxation last year amounted to about \$800. They go to the ballot-box with their white neighbors, and appreciate the privilege very highly. It has an elevating influence upon the Indians themselves, and on the other hand gives them the respect which they need in the eyes of their white neighbors. They nearly all read their own language, and vote as understandingly as a large class of foreign voters. A large proportion have received their patents for land and so are property-owners. They all live in houses very similar to their white neighbors, and dress like them. No painted Indian with long hair, feathers, or breech-cloth can be found in the settlement.

THEY ARE A CHRISTIAN COMMUNITY.

There are two churches among them, one a Presbyterian and the other an Episcopal organization. In the two are 184 communicants, who comprise the most of the adult population. On the Sabbath nearly the whole community may be found at church. No reasonable man can doubt that Christianity is the foundation of that civilization to which these Indians have attained.

THE FUTURE.

The question is often asked, "Will they succeed? Won't they sell out as soon as they can and go back to Indian life?" We acknowledge there are serious dangers before them. One is whisky, another is going in debt, another is their inability to pay taxes; and these or other complications may lead them to sell out and become scattered. But there is never a victory without an enemy. In answer to the question, we say they already have succeeded—the victory is theirs. They are now living as white men—a civilized, not a barbarous life. They only run the same risk as every young family—that they may fail and become paupers.

A THEORY.

The above statements may shed some light on a common theory of some friends of Indian civilization, that all the Indians of the Union should be congregated on one or two reservations, where missionaries and other philanthropists could have full sway to try the merits of their respective systems of civilization. Here is a little community of less than one hundred families, who, without any care for theory, have struck out, each man for himself, and, taking the pioneer settlers for their pattern, have scattered themselves out over a county, and with their patterns near at hand on every side, have attained unto a fair degree of civilization. It might be well for theorists to study this case a little. There may be something peculiar in the nature of the Indian that requires more example than can well be had where large numbers of heathen are congregated and separated from the civilized world. Or it may be that that independence without which civilization is naught can never be attained by the Indian until he is cast out of his old reservation nest and told to spread his wings and fly, like the rest of the "eagle nation," or fall and die.

RECOMMENDATIONS.

(1.) Let the government be careful not to infringe upon the natural right of every man to provide for himself and family. This is what the young American starting out in life calls "taking care of himself." Every man needs this incentive to industry, but especially the Indian. Many wonder why the Flandreau Indians ever left the old agency—free rations and gray suits. If they could go into their hearts they would find it was that same longing "to be one's own," or "for freedom," as we are accustomed to say, which led the Puritans to Plymouth Rock. And now let them have it, to the verge of starvation, and may it make of them as sterling a race as the descendants of the Puritans. What belongs to these Indians as their due, give them as endowments for educational institutions, or as outfits for farming, but not in food or clothing.

(2.) To be more definite in my recommendations, I will say that no more worthy or necessary object of expenditure can be found than the establishment of a boarding-school. The children are too scattered for a successful day-school; and, to cope with the civilization about them, they should be for years under the continual eye of an experienced educator, where they may be made masters of the English tongue, and

established in morals and industry. This is not a new recommendation from me, and fuller statements may be found in many of my former reports.

(3.) The sanitary condition of these Indians calls for some notice. It will be seen that there are several more deaths than births the past year, and that in the absence of any epidemic. I am led to believe that many cases of death arise from ignorance of the simple laws of health, which were broken with impunity in their wild state. There are now a number of physicians resident in the neighborhood, and I recommend for your consideration the employment of a competent person to attend the sick, and especially to give them such instruction in the laws of health as their case demands. As it would take only a small part of their time, and they are already residents of the community, the cost of service would be comparatively small.

In turning over to my successor, I have endeavored to transfer to him not only the government property, but the good will of the Indians. I, however, retain my strong interest in their welfare, and shall continue to visit them occasionally as a missionary of the Presbyterian Church.

Very respectfully, your obedient servant,

JOHN P. WILLIAMSON,
United States Special Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

FORT BERTHOLD, DAKOTA,
August 24, 1878.

SIR: I have the honor to submit this my second annual report upon the condition and progress of the Indians at this agency.

Fort Berthold is very pleasantly located on the right bank of the Missouri River. The "lower agency," containing the houses of the employés, office, tool-house, carpenter and blacksmith shops, barns, and corral, is beautifully located on a bench of land about 50 feet above the river. The "upper agency," consisting of the Indian village, with trader's store, old corral, and issue room, is located about one and a half miles across a bend of the river, on a high bluff, at the foot of which the river makes a sharp turn. The village is about 50 feet above high-water mark, and, being built of bullet-proof logs and earth and surrounded on two sides by high bluffs, it presents an almost impregnable defense against any number of hostile Sioux. Between the upper and lower agency are little farms, consisting of from one to two acres, cultivated by the Indians, making an aggregate of about 400 acres, while above the village, on bottom-lands, are other small patches amounting to as much more. The climate is dry and healthful, and the soil productive.

Great inconvenience is experienced from the distance of the Indians from the lower agency, constant annoyances and misunderstandings arising because the interpreters cannot be in both places. The great need of this agency is good and reliable interpreters. The mischief which an interpreter, through ignorance or viciousness, can do an agent is incalculable, especially at the beginning of his administration, as I know from experience.

The number of Indians now on the roll is 1,292: *Gros Ventres*, 365; *Mandans*, 273; *Arickarees*, 654. If you include *Gros Ventres* living in the vicinity of Buford, who properly belong here, the number would be increased to 1,400, while scouts in various places with the Army would swell the number still more.

The amount of agricultural products raised by the Indians this year probably was never greater during the history of the agency. By my own personal presence and encouragement, and that of the farmer, they have cultivated about 800 acres of land. More than half of this they have prepared with hoes. This has been as nicely planted and as cleanly kept as any farms in Minnesota. I estimate that they will raise 15,000 bushels of corn and 5,000 bushels of potatoes, besides a large amount of squashes, beans, turnips, onions, &c.

They roast great quantities of green corn for winter use by making a long, flat pile of brush, covering it with the corn in the husk, and then burning away the brush. When thoroughly cooked, the burnt husks are removed, the corn shelled and dried and put away. They also dry the squashes for winter food.

While the squaws do most of the agricultural work, the number of male Indians who labor, both in the fields and elsewhere, is constantly increasing. They consider it no disgrace to work, and take pride in showing their calloused hands in proof of it. One of the most influential and industrious Indians in each tribe has been selected to have charge of the labor department in his tribe, and is called "captain of the working band." He furnishes help for the agency when wanted and sees that the Indians properly cultivate their own fields, and aids the agent in rewarding the industrious.

The squaws have also made some progress in the arts of housekeeping. The ladies of the lower agency have kindly taken some of them into their homes and taught them bread-making, sewing, and knitting, in which they evince abundant interest and

ability. They can wash and iron very well. The pleasure and pride manifested when they have been successful in these arts has been sufficient reward to these ladies for their pains. An industrial school for the purpose of carrying on this branch of industry should be established at once.

The school has been more successful this year than ever before, owing partly to the improved conditions. The new and commodious school-house, occupied since December, has been nicely painted, grained, and seated; and an additional teacher, furnished by the American board, has taught the Gros Ventres and Mandans, leaving the Rees (who nearly equal the other two tribes in number, and will not associate with them) for the government teacher.

There is a strong prejudice on the part of the older Indians against adopting the ways of the whites, and consequently the children do not have much encouragement to attend school, and are very irregular. We hope they are overcoming this, however. As a means to this end, the teachers adopted the plan of giving dinners on Friday afternoons to all who had attended during the five days of the week. In this they were successful. The death of an old chief who, more than any other one, opposed civilization, has removed another obstacle.

The teachers have labored faithfully both in school and out for the good of these Indians. Besides their regular work in school, they have instructed their pupils and others in making suitable garments for themselves, and have also cared for a good many sick of the village. Among the annuity goods last fall were a number of boys' suits, which immediately won such popular favor that more had to be made for those who did not receive from the distribution. It is hoped there will be enough to go all around this fall.

The Sabbath services by the missionary, Rev. C. L. Hall, were well attended during the winter—all meetings held in the school-house—but the coming of warm weather made a perceptible thinning both on the Sabbath attendance and the day-school.

The Indians have suffered during the past year from horse-thieves—at one time carrying away about 20 horses. Supposing they had been stolen by some of the Devil's Lake Indians, with whom our Indians had long been on terms of perfect amity, they retaliated; but when convinced of their mistake they restored more than they took. This was the occasion of a friendly visit of 200 Santees with their agent, and a renewal of the former treaty. Mutual pledges of friendship were exchanged and promises made that henceforth they would not take the law into their own hands, but seek restitution through the legal ways. Encouragement was given them that the government would make good their losses. I hope the department will act wisely in the premises.

Very little permanent good can be accomplished for these Indians, either physical or moral, as they now live in the village so closely together, in such unhealthy tepees, and with so many occupying the same one. This fact appeared plainly to me when I first came here; and my great hope was to see them living in comfortable houses on little farms of their own, according to plan sent the department, which failed of approval. There are probably a half dozen or more of the best working Indians who, with assistance and encouragement, would be willing to move out of the village, as they will need especial help on account of opposition from the tribes, &c. I would recommend that a special offer be made from the department to the first eight or ten who shall be willing to take this first step. If a few can be induced to "break the ice," others, seeing them comfortably situated, will be more willing to follow.

These Indians are peaceable and friendly. I must commend them for their patience in waiting the arrival of supplies when really suffering from hunger. I believe them more easily dealt with than as many whites would be under the same conditions. I see no reason why, with proper management and help, they may not in time become good and worthy citizens of the United States.

I have still to protest against the permission of whites to live with Indians. As a rule they are only the lowest men who would do so, and certainly their influence is very detrimental.

In consequence of the many difficulties and discouragements of this position, with which I felt unable to cope longer, and the apparent fact that I could not accomplish what I most desired, I resigned the position as agent last February. My resignation was accepted in March, and I have been looking for my successor every week since. The wages of my employés being reduced by the department, some of them could not be induced to remain, and their places have been partially filled by such help as could be obtained upon so much uncertainty and short notice. I have done the best I could under the circumstances, and am rather surprised that the work has moved along so smoothly and well as it has.

The oats are all harvested and threshed, and the Indians are bringing in hay at the rate of about twenty tons per day. It is nearly all in, that the department agreed to purchase—200 tons.

Finally, I would say I came to this agency with a strong desire to help this people, and their greatest good has been my motive during my stay. When I leave them it

will be with the consciousness that though my administration has not been free from mistakes, I have endeavored honestly and faithfully to do my duty. I have not been able to accomplish for these Indians the work I had hoped, but I leave it to my successor, who, I hope, may be sustained by the department and surrounded at the agency by such as shall aid him in this noble work of lifting the fallen.

Very respectfully, your obedient servant,

E. H. ALDEN,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

LOWER BRULÉ AGENCY, DAKOTA,
August 15, 1878.

SIR: I have the honor to submit the following report of the state of the Indian service and the condition of the Indians at this agency, in accordance with circular-letter dated Indian office July 1, 1878.

I assumed control of the agency on the 21st of March last, in obedience to Special Order No. 30, headquarters Department of Dakota, series of 1878, and instructions from Inspector John H. Hammond, dated March 16.

The number of Indians at the agency on the 5th and 6th of July, by actual count, was as follows: Men, 287; women, 301; children, 494; total, 1,082. This census was corrected from the 10th to the 15th of August—date of writing—and now shows, men, 315; women, 399; children, 533; total, 1,247. Boys under 14 and girls under 12 years old are rated as children. Since this census was taken, in July, a large number of *Lower Brulés* from Spotted Tail's camp, where they have been living the last three or four years, have returned to the agency and declared that it is their wish to be reunited with their people and live at the river. I have not been able to count this acquisition yet, but estimate it to be 70 to 90 persons. I very much doubt, however, that they will all remain.

This tribe has heretofore been reported in the statistics of both War and Interior Departments as numbering 1,800. On the 7th, 8th, and 9th of August, 1876, I took the census of this tribe and found but 897 souls. On the 5th of October of the same year this number had increased to 1,014 by the arrival of absentees from the north and from other agencies. On the 4th of April, 1877, Lieut. J. M. Lee, acting agent at Spotted Tail, reported that, having made a careful census of his Indians, he found 159 *Lower Brulés* among them. Lieutenant Lee having refused these supplies, a large number of them returned to the agency, which brought the number here up to something over 1,100. Many of these went back when Spotted Tail moved to the river, and now have again returned, bringing with them many of those who remained behind the first time. Accordingly, I doubt much that this tribe ever numbered many over 1,300 people.

The Upper and Lower *Brulés* being consanguineous people, communication and intercourse between the two are constant, and as long as the former people are unsettled or discontented their temper and disposition must unfavorably affect the work of civilization at this agency. During the past year the *Lower Brulés* have been remarkably peaceable and friendly, and I think at the present time are more so than at any time heretofore, the departure of the Poncas and the settlement of the Black Hills having put an end to their former occupation.

During the past summer a small number of the tribe applied themselves to agriculture, and with much success, the season being a very favorable one. These are very much encouraged, and appear to be determined to prosecute their work. Forty-five acres of new land were broken during the spring by the Indians themselves, assisted by an employé, and 93 acres have been cultivated and fenced. This is in 38 lots, and owned mostly by individuals. The disposition to abandon the old tribal method of planting and cultivating in common seems to prevail, and receives such practical encouragement as I can give.

I recommend that a bonus be granted from the annuities of this tribe to such Indians as have established a permanent abiding place and brought enough of the soil under cultivation to contribute visibly to their support. This bonus should be in breeding-cattle, wagons, harness, and agricultural implements, and when conferred upon the individual the tribal interest in the property should be extinguished. About 20 wagons, 20 sets of harness, and 40 cows could be disposed of in this way at the present time, as a deserved reward to the industrious individuals of the tribe. Wagons and harness are especially needed. Twenty-five houses have been erected during the season, and about as many more are in preparation, and will be put up before winter, if stoves and windows can be obtained to make them habitable. A saw mill would add materially to the prosperity of the tribe.

AGRICULTURE.

I find it to be impossible to ascertain the percentage the tribe has contributed to its own support by agriculture this year. It is, however, exceedingly small, though much

greater than any year heretofore. The principal crop is corn, which is supplied in abundance by the government. This is mostly gathered and dried while green, and kept for use during the winter. It is very palatable and nutritious, and much preferred to the yellow corn, composing part of the ration.

The most of the potatoes issued in the spring for seed were consumed as food, a small portion only having been planted. Except in few instances, the new potatoes have nearly all been taken from the ground, and by the end of the summer there will not be enough left to seed the same ground over. Nearly everything raised is consumed in this manner before it matures. It is difficult to make the Indian understand that this is improvident, for he never thinks of the future.

One of the greatest difficulties the Indian farmer has to contend with in this country is the scarcity of timber suitable for the purpose of fencing. The rail or the post and rail fence is impossible in Dakota. Accordingly the fences are made entirely of cottonwood poles, which involves the destruction of an enormous quantity of young timber annually. The Brulés cut, during the months of May and June, about 17,000 saplings, for fencing alone. These make inferior fences, and there is continually some trouble arising on account of trespass by cattle. With characteristic improvidence these fences are in great part consumed as fuel during the winter, and even if spared they rarely last more than two years, as when this wood dries it decays and becomes as brittle as a pipe-stem. I suggest that fencing-wire be supplied as an annuity. It is cheap and indestructible. The mutual jealousies of individuals and bands render it impossible to make any arrangement by which cattle and horses might be herded and kept away from the field.

THE SCHOOLS.

The schools are not well attended, and are indifferently supported by the church. One of them has been closed since early last spring, there being no teacher for it. The children learn to read in their own language very readily, but as at present conducted it is not possible to teach English. Those of the people who do not oppose the education of the children are indifferent to it, and when the work is interrupted or abandoned for a time soon relapse to open opposition. In these intervals the windows, doors, &c., of the school-house are broken or destroyed, and the building usually turned into a place for dancing. There should be no cessation to the effort to educate the children, and attendance at school should be made compulsory in reality, a matter wholly within the power of the agent.

It is my opinion that the day-schools should be entirely under the supervision of the agent, and should have no connection whatever with any church. The Indians cannot discern any distinction between the efforts of the mission to educate and to proselyte, and therefore their heathen and superstitious prejudices are added to the natural feeling against education. This, of course, adds strength to the opposing arguments of the unfriendly chiefs and the medicine-men, and, I think, greatly retards secular education. As a natural consequence, the rites and doctrine of the church must to some degree supplant the heathen practices if the way can be prepared by a preliminary and purely secular education of the youth.

One of the greatest difficulties would be to obtain competent teachers who would consent to live in the camps. These should be educated Dakotas or intelligent persons of mixed blood. It is not possible to impart even the rudiments of English in the primary (camp) schools. To accomplish this the children must be separated from camp and parental association and placed at the boarding-school, which should be the "high school" of the tribe, and, unlike the camp-schools, should be completely under the control of the church.

CIVILIZATION.

Among the people of this tribe communal interest in property, polygamy, heathen worship, and other barbarous customs prevails almost as generally as when they lived on the buffalo and had no home. Unless these practices are suppressed, the youth must grow up like their fathers, a horde of painted savages, filled with the darkest superstition, and the tribal traditions recited at every dance and festival, recognizing prowess in war as the only superiority invincible to both civilization and Christianity, despising enlightenment and industry, and returning nothing for the bounty of the government, which they deem to be greatly indebted to them for consenting to remain at peace.*

The corollary of this argument is obvious. These Indians should be disarmed and dispossessed of the 2,000 horses that constitute their wealth and independence, and thus an end put to the only real impediment to be overcome in their conversion to civilization and productive industry, as well as to the standing menace of peace and the safety of life on and about the reservation.

During the year small parties of white marauders and horse-thieves, from the settlements in the Black Hills, have come upon the reservation and succeeded in running off each time a number of horses belonging to the tribe. Within a month 29 horses

*Speech of "Iron Nation," head chief, to Captain Johnson.

have been stolen by this class. The Indians are greatly and justly incensed, and have formed a party to take the field against these robbers should they appear again. Unless these outrages are stopped they will eventuate in serious trouble, in which innocent persons will be more likely to suffer in reprisal than the guilty ones.

The "Indian police" has been established in the tribe, and is accepted with satisfaction by the people. It has not been an experiment long enough to enable me to form an opinion as to its permanent usefulness, but I believe that the project will be successful.

I do not think that the time has yet arrived when it would be advisable to extend the laws of the United States over this tribe. If it is ever disarmed, however, it should be done as soon as possible afterward, for the Indian when deprived of weapons of offense is as amenable and submissive to law as the white man, and much more so than the class of white men found on the border. Perhaps the strongest and most cogent argument that the Indians advance for the retention of their arms is that the laws are weak and dilatory in execution, and would not afford them the protection and security afforded by fixed ammunition and rifles.

The health of the tribe during the year has been remarkably good, less than one-half of one per centum of the population having received medical treatment. The keeping of vital statistics is the most difficult and unsatisfactory part of an agent's duty. It is nearly impossible to keep this record correct, nearly every head of a family having two or more names, which are changed according to circumstances. Then, too, there is a strong superstitious dislike on the part of the people to impart such information.

THE AGENCY.

The only improvements made at the agency proper during the summer are the extension of the agency field, the erection of a picket-fence enclosing the employes' dwellings, and the planting of a few shade-trees. The employes have been constantly engaged in their various duties, and in assisting the Indians.

An additional store-house and another dwelling for employes are very much needed.

The Episcopal Church has maintained a boarding-school at the agency during the year, under the direction of Rev. H. Burt. The number of scholars, I believe, is three. Services have been regularly held in the agency chapel, in Dakota and English. In June, Mr. Burt was transferred to Spotted Tail's agency, and, I understand, will be replaced by an Indian clergyman.

It affords me great pleasure to incorporate in this report my acknowledgment of many official courtesies, emanating from the Indian Office, in connection with my communications and reports.

I am, sir, very respectfully, your obedient servant,

WM. E. DAUGHERTY,
Captain First Infantry, Acting Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

RED CLOUD AGENCY, DAKOTA,
September 4, 1878.

SIR: In my last annual report, dated Red Cloud Agency, Nebraska, August 25, 1877, I took occasion to mention the disorderly conduct of the northern chief, "Crazy Horse." The disposing of this incorrigible wild man was the first stirring event thereafter, resulting in his death on the 5th of September, while resisting the officers who were endeavoring to confine him in the guard-house at Camp Robinson.

While this threw the *Minneconjoux* and other northern tribes then stopping at the agency into the wildest excitement, the *Ogallallas* and other agency tribes were brooding over the result of the Congressional act of August 15, 1876, requiring them to go to the Missouri River to receive their annuities and other supplies, and to take up their residence at an agency provided for them at the mouth of Yellow Medicine Creek, on said river. The supplies for the coming winter were already there, or in transit to that point. The whole measure was unsatisfactory to the Indians, and their refusal was so positive and determined as to indicate the necessity of a compromise; consequently, twenty-three of the chiefs and representative men of the Red Cloud and Spotted Tail Agencies were invited to Washington in September to confer with the President on the subject. A council was held in the Executive Mansion, September 26, 1877, at which the Indians of Red Cloud Agency agreed to be transferred to a point near the Missouri River, and receive their supplies during the winter, with the understanding that they would be allowed to select a suitable place, with the assistance of their agent, within the limits of their reservation, for a permanent agency, and should move on to it sufficiently early in the spring to plant crops.

On the 27th of October, 1877, the caravan, consisting of about 4,600 Indians, two companies of cavalry, 120 transportation-wagons, 2,000 beef-cattle, and employes and

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traders, took up the line of march, following the White Earth River 250 miles, then north 20 miles to Yellow Medicine, and down the latter stream 30 miles to the Missouri River, which place we reached on the 25th day of November. The weather proved mild for this season of the year, notwithstanding much suffering was experienced. The Indians were poorly clad, not having received their annuities, the river filled with quicksand, and running ice had to be forded three and four times a day. Many Indians, men, women, and children, were on foot, not having sufficient transportation for them.

When about 75 miles *en route*, over 2,000 northern Indians broke away from the Spotted Tail column, which was then moving about 40 miles south, to a point lower down on the Missouri, and made a descent upon us, and threatened to involve us in serious difficulty, not only by devouring our limited supplies, but by causing a general outbreak. They brought with them the remains of Crazy Horse in order to madden our Indians, but in this they failed, and the major portion finally struck off north.

The Red Cloud Indians went into camp about 60 miles southwest of the agency, the only available place for winter quarters, and have quietly and patiently fulfilled every obligation they entered into. As spring approached they began to prepare to move to White Clay Creek, a branch of White Earth River, this being the place selected by them for their permanent agency, 170 miles west of this agency. Owing to delay by Congress in passing the Indian appropriation bill, and the time required by a board of commissioners appointed by that body to reach here and make an exploration of the country and report, the Indians were kept waiting, and, filled as they were with apprehension that the government would not be true to its promises, required my constant efforts and assurances that the promises made them last fall by President Hayes and the honorable Secretary of the Interior would be fulfilled. I explained as well as I could the cause of delay.

I am less fortunate in explaining the present delay to their satisfaction, as they know that the board of commissioners approved their selection of land for their new agency and have so reported. It is not easy to convince them of the necessity for longer delay. It is a fact known to every intelligent man who has been with Indians on the frontier, that the most damaging effects have heretofore resulted from broken promises made by the government and its officials, causing the greater part of the troubles with the Sioux since the treaty of 1868. It is true the government has spent large sums in feeding them, but it has driven them, contrary to treaty promises, from place to place, each time taking more of their territory, until nothing is left them but the "bad lands." The military has taken an immense number of arms and horses from them, and promised to return their value in cows. It would be well to have this matter investigated.

It seems reasonable to me that to manage the Indians successfully would be to, first, deal with them justly and truthfully in all respects, and let the civil and military authorities be firm; second, dispense with tribal administration of justice, and cause every Indian under all conditions to be subject to such code of civil and criminal laws as may be best suited to the circumstances, administered by justices of the peace and higher courts held at alternate points, for the trial of all civil and criminal cases committed on Indian reservations by Indians or white men; third, when an Indian settles on a parcel of land on his reservation and fulfills certain requirements, he should have a genuine title in his land conferred upon him and his heirs, the same as in the homestead act; fourth, as fast as individuals manifest sufficient civilization, in the discretion of the aforesaid courts, citizenship should be conferred upon them, which would encourage them and inspire others as well as meet the ends of justice. Law is the safeguard and education the companion of civilization; both should be intelligently provided for in the management of Indian affairs. Many Indian crimes are perpetrated by individual desperadoes without the knowledge of their tribe, and may result in indiscriminate punishment. The guilty could be more readily sought out and punished under civil authority if properly organized. What are generally called Indian wars should be considered in the light of riots. They may require military force to suppress them, after which civil authority should inquire into the cause and punish the guilty on both sides, for there are always two sides.

It is true that certain laws have been enacted to govern the people on Indian reservations, but they are incomplete and often rendered void by force of circumstances. As an instance, an agent cannot be expected to capture a horse-thief and take him (as would be the case here) two hundred miles to trial, and take witnesses also, with an even chance that he would have all expenses to pay; for it is not at all certain the prisoner would be indicted, there generally being plenty of "pals" on hand to swear him through. I have made the above remarks more particularly in reference to the Sioux and neighboring tribes, and believe the subject deserves attention.

The Indians are undoubtedly anxious to secure peace and permanent homes. Provision has been made to furnish them with wagons, farming implements, and seed, with which to try the experiment of farming, and there is no doubt a large number will

make an honest effort. It is to be regretted, however, that the land selected for them, although the best on their reservation, is not over second rate.

Five hundred American cows are also promised them to commence raising stock, which will suit their genius better than farming, and will prove more remunerative.

They talk about education with increasing interest, and schools properly conducted will be successful. A house 18x24 was built late last fall, mostly by Indians, and school taught part of the winter by Rev. John Robinson under the auspices of Bishop Hare, with good results, a number having in that time learned to read and write.

The supplies furnished this agency during the last fiscal year, both annuities and rations, were varied, of good quality, and, with strict economy, sufficient. The purchases that have arrived for the present fiscal year are also of good quality.

This report, together with accompanying statistics, is respectfully submitted.

Very respectfully, your obedient servant,

JAMES IRWIN,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

ROSEBUD (FORMERLY SPOTTED TAIL) AGENCY, DAKOTA,
October 1, 1878.

SIR: The annual report from this agency has been delayed and must necessarily be brief, for obvious reasons. Lieut. J. M. Lee, Ninth Infantry, United States Army, who had been acting Indian agent for Spotted Tail, now Rosebud Agency, since March 3, 1877, was relieved of the onerous duty at his own request by the present acting agent, July 1, 1878. At that time nothing was being done, and but little said, except in relation to the promised "removal" of these Indians to the Rosebud country. In fact, this had virtually been the condition of affairs there ever since the arrival of the Indians from Camp Sheridan, in October, 1877. Little work had been done or improvement made in any direction, on account of the uncertainty by which everything was surrounded.

The honorable Commissioner of Indian Affairs, accompanied by the Sioux commission, consisting of General D. S. Stanley, Rev. A. L. Riggs, and J. M. Haworth, esq., arrived at Spotted Tail Agency July 5, 1878, being five days after the relief of Lieutenant Lee by the present agent, and on the following day held a council with the Indians relative to their removal. Neither the day upon which to start nor the exact locality to which they were to go, was agreed upon.

The Indians consented to remain ten days longer, but, through their chief, Spotted Tail, declared their determination not to remain twenty days. As a matter of policy, permission was given them to start July 25, though as a matter of fact many of them had already been moving by short marches for several days. Transportation had not yet been secured, nor had their destination been determined upon, except that it was to be in the Rosebud country. It had been estimated that forty wagons would be necessary to haul the destitute Indians alone; but enough only could be obtained, except at exorbitant rates, to haul scanty supplies from the old agency in time for each succeeding issue. Thus the tedious march went slowly yet peacefully and patiently on until September 1, when, footsore and weary (many had walked all the way), they reached the newly-selected sight for their agency, on the western bank of the Rosebud, about 2½ miles above its confluence with the South Fork of White River.

GENERAL APPEARANCE OF THE COUNTRY.

The country here, though seemingly the unanimous choice of the Indians while they were yet on the Missouri River, does not prove to be satisfactory to all of them now that they are here; and, upon a hurried glance over the country, it is somewhat surprising that it should ever have been chosen by any of them, yet having been thus chosen, should be made their permanent home. Timber is not abundant, and what exists is often difficult of access. It is not a region specially adapted to agriculture by any means. It is, however, a good grazing country, suited to the raising of all kinds of stock common to this latitude.

REMOVAL OF SUPPLIES.

The Indians having been located according to their choice, attention was given to the removal of additional supplies necessary for their subsistence and of material for the erection of buildings absolutely needed for the protection of property belonging to and the transaction of business connected with the agency. As the season might soon become inclement, it was deemed best to push forward with the utmost activity the transportation of the subsistence stores at the old agency, and whatever material might be utilized in the way of permanent improvement at the new.

SAW-MILL.

The mill and equipments from Camp Sheridan were placed on the ground chosen for their location on the White River bottom, and a competent machinist, aided by a sufficient number of laborers, being now on the ground, the conversion of timber into lumber and the erection of buildings will be soon going on. Other mechanics are putting up new store and issue-houses.

PROGRESS OF BUILDING.

Satisfactory progress has been made in the completion of a convenient office, corrals for penning cattle, for weighing and slaughtering, placing cattle-scale, and the inclosure of a sufficient area with a substantial fence for the proposed agency buildings. At the landing on the Missouri, in addition to the large warehouse, 70 by 200 feet, built by contract, inclosures have been made for stock, a frame-barn substantially built, and a beginning made towards a dwelling for the resident receiving and shipping clerk stationed there.

EMPLOYMENT FOR INDIANS.

To further the views of the department favoring the employment of Indians as laborers, to break up their idle habits by inducements to labor, and to furnish them with additional means to increase their comforts, a vigorous effort is being made to throw the freighting business into their hands. They are already in possession of many horses of fair quality, and the plan proposed is to furnish them with wagons and harness, the department retaining, for the present, the ownership of the same, and to pay them a stipulated price per hundred pounds for hauling, the price being the same as that paid to white men for the same service. Many of the half-breeds, and some full-bloods, owning teams, have already done freighting for the Indian service, and for licensed traders, with results satisfactory to all concerned. There being at the present time a large amount of stores in the new warehouse at the landing, ready for transportation to the agency, distance of about 92 miles as the road now runs, it is intended, as soon as the promised wagons arrive, to start a train of one hundred four-horse teams owned by Indians, for the removal of these stores. An experienced white teamster will be assigned to each ten or twelve wagons driven by Indians. The general oversight of all this outfit, the care of the property confided to the teamsters, the opening of accounts with each for supplies furnished and labor performed, the reception of all articles transported, and the settlement of questions constantly arising, will involve an amount of labor, care, and responsibility hardly to be appreciated by those not cognizant with the details of such operations.

AGRICULTURE.

During the coming spring every inducement should be offered to the Indians to commence the cultivation of the ground, both for purposes of gardening and farming. An estimate of the seeds necessary will be forwarded in due season. In connection with this subject, it is suggested that a sufficient amount of wire for fencing be furnished to be issued to those Indians whose reputation will warrant the belief that the wire will be used by them for the purposes intended.

LAW AND ORDER.

There being no permanent and sufficient military force to compel submission on the part of the Indians to the rules of the agency, the method of treatment adopted has been to act with them as though complete acquiescence to such rules was a foregone conclusion; also, to scrupulously fulfill every promise made, to impress upon them the complete fairness of intention on the part of the Indian Department, and to cause them to understand the general benefits accruing to all parties by the fulfillment of the compact into which they have entered. The result has been gratifying in the extreme, and although outside of the jurisdiction of organized civil authority, law and order are maintained, and complete safety of person and property is assured to all. These results are no doubt due largely to the strict exclusion of all kinds of intoxicating drinks from the limits of the agency, except where allowed by military authority, and the prompt arrest of every white man not authorized to enter the Indian country.

CENSUS.

Owing to the impracticability of taking an accurate census during the removal, or at any time since taking charge of the agency, no very definite change can be made in the numbers of Indians, whites, or half-breeds in the agency, from those furnished by the previous agent. Constant applications are made by Indians from other agencies to be taken up here, but the instructions given by the department, in circular No. 10, have been sedulously adhered to as the best method of breaking up the migratory habits of these nomads.

INDIAN POLICE.

A limited number of Indians are now enlisted in the Indian police, and their employment in restraining unauthorized white men from encroaching upon the reservation in escorting them on their way out of it, in guarding public property, and in preventing depredations on private property running at large, has been attended with beneficial results.

EDUCATION AND RELIGION.

There is as yet no mission school-house or chapel at this agency. The educational and religious interests of the Indians here have been confided to the Protestant Episcopal Church. The excitement consequent on intended and actual removal has interfered very largely with all work connected with education or religious teaching. A small school, however, is kept up, and regular services held in the tent occupied by the male teacher.

CONCLUSION.

In the building up of a new agency, especially one so remote from the ordinary lines of travel by water or rail, and to be reached only by wagon-roads, a far greater amount of help is needed than would be necessary at an established agency. The expenses of living are also largely increased from the same causes, and it is thought great injustice would be done to competent and faithful employes by any reduction of salaries at the present time from those paid the preceding year. Married men of character, competent for the fulfillment of the duties imposed upon them, cannot be prevailed upon to leave the comforts and security of civilization and undergo the various hardships, deprivation, and labor consequent on a frontier life without adequate compensation.

In view of my limited experience in matters connected with the Indian service, I refrain from offering any recommendations to those who have made the subject a study and understand most fully, in all its bearings, the vexed question of the relation of the Indian tribes to the nation at large.

Very respectfully, your obedient servant,

WM. J. POLLOCK,
Special United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

SISSETON AGENCY, LAKE TRAVERSE RESERVATION, DAKOTA,
August 24, 1878.

SIR: In compliance with instructions contained in department circular under date of July 1, 1878, I have the honor to submit my first annual report of the condition and progress of the Indians under my charge.

I arrived here September 1, 1877, and learned that J. G. Hamilton, my predecessor, was absent. I assumed charge of the agency on the 3d September, but Agent Hamilton did not return till the 9th September, and on the following day he turned over to me all of the public property in his possession, taking my receipts therefor.

Lake Traverse Reservation is located in the eastern part of Dakota (Lake Traverse forming a portion of its eastern boundary), embracing about 1,000,000 acres of land, a large portion of which is well adapted to agricultural and grazing purposes. The timber on the reservation is confined to the ravines, and consists mainly of oak, maple, ash, and cottonwood, and in sufficient quantities to supply framing-timber and fuel for use on the reserve for a long time.

The Indians under my charge are portions of the *Sisseton* and *Wahpeton* bands of *Sioux*, numbering about 700 males and 800 females, having 17 headmen and one head chief.

The agency is situated 25 miles southeast of Fort Sisseton, and 52 miles southwest from Herman, Minn., the latter being the nearest shipping for the agency supplies. The buildings occupied by the employes at the agency are, with two exceptions, old log houses, and are in a very dilapidated condition. The warehouse is built of brick, two stories high and nearly new, with a good basement of sufficient capacity for a large amount of storage; two rooms are occupied by the agent on the first floor for an office, and the agency physician has an office on the second floor. The old building formerly used for a warehouse has been made into a stable during the year, and has good accommodations for the agency horses, besides storage room for 12 tons of hay.

AGRICULTURAL.

For several years past, till last year, the crops on this reserve have been nearly all destroyed by grasshoppers, but this season promises an abundant harvest, and Indian farming has been attended with unusual success, and the Indians feel very much encouraged with the result of their farm labor. At present there are 2,191 acres of land broken on this reservation, 450 acres of which are new land, broken during this season;

1,700 acres are under cultivation by the Indians. There was a much larger acreage plowed last fall than ever before at the same season of the year, and under the supervision of our farmer was well prepared for seeding in the spring. Nearly all of our Indians who were without seed were provided from the warehouse, early in the season, and manifested a good degree of interest in planting and cultivating during the season. The estimated crops on the Indian farms the present season are as follows: Wheat 10,000 bushels; oats, 2,000 bushels; barley, 250 bushels; corn, 3,000 bushels; potatoes, 3,000 bushels; turnips, 1,500 bushels; onions, 150 bushels; beans, 100 bushels, besides cabbage, pumpkins, and squash in large numbers, and 2,500 tons of hay. In addition to this the farm at the manual-labor school has produced: Wheat, 395 bushels, and oats 65 bushels, machine measure. We estimate the other crops as follows: Potatoes, 350 bushels; onions, 15 bushels; turnips, 150 bushels; beans, 20 bushels, and a good variety of other garden vegetables. The grain of the reservation has all been harvested, 2,000 bushels of which has already been threshed.

Early in July many of the Indians, feeling confident of a large yield, of grain were very earnest in their appeals for grain-cradles and other appliances with which to secure their crops; and under authority from the department a lot of grain-cradles were bought and issued to them; but the number purchased was insufficient to supply the wants of all, and a considerable portion of the wheat in the smaller fields was cut with scythes. Several of our Indian farmers who have large wheat-fields have bought harvesters for themselves at a cost of from \$165 to \$200 each, and are to pay for them from the proceeds of their sales of wheat. This is a move in the right direction, and cannot be too highly commended. All of our Indians and half-breeds, with but few exceptions (and these generally confined to very old people), wear citizen's dress, and live in very comfortable houses, generally made of hewn logs and provided with stoves, tables, seats, and other housekeeping conveniences. There are, however, several frame houses occupied by the Indians, some of which are two stories high and well painted.

EMPLOYÉS.

The farmer has been constantly employed visiting and instructing the Indians in their farm work till the haying season; but since we have commenced thrashing it has been necessary for him to attend to one of our thrashing machines. Our teamster left in July, and since that time we have mainly relied on Indian help at the stable, which is far from satisfactory; Indian boys will not take proper care of our horses, and it may be necessary to procure a white man for this purpose.

The miller has during the year sawed all of the timber which has been hauled to the mill during the time, together with a lot of old logs which had been in the mill-yard two years or more, amounting altogether to 50,000 feet, and has ground during the season as much wheat for the Indians as the limited capacity of our grist-mill would allow. This season the Indians will be obliged to take a considerable portion of their wheat long distances off the reserve for milling purposes. The carpenter has built no new houses for the Indians during the season for lack of time and finishing lumber, but has prepared the frames for several Indian houses, and will put them up this fall, if lumber is provided in time. He has, however, been very busy on repairs, mainly of wagons and plows for the Indians, who this year have made a very diligent use of them, and consequently required more repairs than usual.

Our blacksmith has had all the work he could attend to in repairing the iron work on plows and wagons, shoeing horses, &c.

SCHOOLS.

During ten months of the year (the Manual Labor School eleven months) three schools have been in successful operation—the Manual Labor School, the Good Will Mission Boarding and Day School, and the Ascension School. The Manual Labor School building, situated $1\frac{1}{2}$ miles from the agency, was originally provided with seats for 56 scholars, but the sleeping-accommodations for this number of children have never been sufficient, and during the past year our carpenter has made an addition of several new sleeping-rooms and improved the condition of the old ones, which has added very much to the comfort and convenience of the pupils.

There are only four or five boys of sufficient age to be serviceable about the farm or garden, and when out of school they are kept at work preparing the land for seeding and cultivation, besides attending to the stock and farm-work generally, all being done under the immediate supervision of the principal, who is fortunately a good farmer.

After the regular school hours the girls are taught sewing of all kinds, cutting, making, and trimming dresses, repairing garments, darning, knitting, and use of sewing-machine; also all kinds of house-work, cooking, and the work of the dairy. After services in the evening, instructions are given in music, both instrumental and vocal, in which both boys and girls take an unusual interest, and show a marked improvement during the year.

Mr. Tuckey, the present principal, assumed the duties of his office May 1, and has

been untiring in his exertions to advance the pupils in their studies, and for the short time he has been with them appears to have been very successful. The two female assistants, having had two years' experience here and being deeply interested in their pupils, have been considered very valuable and successful teachers, and have the confidence and respect of the parents. The time of the matron is fully occupied from 6 a. m. till 9 p. m. in looking after and providing for the numerous wants of the pupils, and in this difficult and laborious work she has proved to be very efficient. The children have made good progress during the year, both in and out of the school-room. The older girls, under the instruction of the matron, are easily taught to cut, make, and repair garments; and in other household duties, including the work of the dairy, will compare favorably with white children.

For several years past the crops at the Manual Labor School farm have been nearly a total failure, but the present season they will be very good. We have already harvested 395 bushels wheat and 65 bushels oats (machine measure), and have a fair prospect for a good crop of potatoes, beans, and other garden vegetables sufficient for use of the school during the coming year.

The Good Will Mission Boarding and Day School is situated about one-fourth of a mile from the Manual Labor Boarding School, and $1\frac{1}{4}$ miles from the agency. The scholars are rationed and supplied in part with clothing from the warehouse, but the other expenses, salaries, &c., are borne by the American Board of Commissioners for Foreign Missions. This school has accommodated as many as 32 scholars, part of them boarding at houses in the vicinity. Mr. and Mrs. W. K. Morris are the teachers, and the Good Will Mission Church, near their house, is used for the school-house.

The day-school, situated at Ascension, about 6 miles from the agency (Mrs. Mary B. Renville, teacher), had, some months, 30 scholars. They live in the vicinity of the school-house, and are quite regular in their attendance.

In addition to these three regular schools, two others were opened and taught reading, writing, and arithmetic, in Dakota, by Indian teachers, during two months in the spring, and had an average daily attendance of 18 scholars each. These schools were opened at the earnest request of some of the leading men in their vicinity, and was in the form of a petition to the agent. These parents seemed in earnest in their efforts to have these schools opened, and showed a continued interest in them by frequent visits during the time they were in operation.

The estimated number of children of school-going age on this reserve is 300, and we have two brick school-houses, which were built in 1873, at an estimated cost of \$600 each. One of them is situated about $1\frac{1}{2}$ miles south of the agency, and the other is at Mayison, 20 miles distant. Both are thoroughly provided with improved seats, tables, &c., and will accommodate 40 scholars each, neither of which have been used for school purposes to any extent since they were built, but allowed to remain unoccupied.

What these Indians actually need is another manual-labor school building of sufficient capacity for the accommodation of 75 scholars, which should be for the exclusive use of the girls, leaving the present building with its appurtenances for the use of the other sex alone; and I think that with proper effort on the part of the agent both schools could be sustained; but if this cannot be done at present, it would be better to open the two vacant school-houses for a day school, so that these Indian children may be prepared to some extent to lead a civilized and useful life rather than to be left without any instructions and to grow up in idleness and vice. It will be impossible, however, to educate these Indian children unless larger appropriations are made by Congress for this purpose.

MISSIONS.

The status of the missionary work among these Indians is set forth in the following report from Rev. S. R. Riggs:

GOOD WILL MISSION, SISSETON AGENCY, DAKOTA.

SIR: The missionary work on this reservation is conducted by the American Board of Commissioners for Foreign Missions, which expends here, in this year 1878, \$2,510 from its treasury. We have six native churches ministered to by native pastors and preachers, with an aggregate membership of about 380. This includes the Brown Earth church in the homestead settlement, which is attached to this agency. For pastoral support these churches have contributed the past year about \$500, and for church building and benevolence about \$300.

The Brown Earth church of homesteaders have built, within a little more than a year past, a house of worship of hewed logs, 30 by 24 feet. They have done all the work themselves, receiving outside aid to the amount of about \$250. Besides this, they have the promise of \$200 from the Presbyterian board of church erection, which will enable them to complete the house. They have already six dozen chairs, which partly seat it. Too much praise cannot be given to these homesteaders for the determination and energy which they have manifested in the erection of this building, while they themselves were living in *shacks*.

In the benevolent work of the churches, the "Advance Society" of Dakota women, under the superintendence of Mrs. John B. Renville, wife of the pastor of Ascension church, has taken the lead. For the first half of this year the avails of their work have amounted to \$50.

Owing to a variety of causes combined, the Christian work on this reserve has barely maintained its ground for some years past. Perhaps it was only natural, when this influence of the religious wave that swept over them after the outbreak—as a result in part of this tribulation—had spent its force, there should be a reaction. So it has been, at any rate; efforts have been made by a considerable number to revive some of their old heathenish customs. They have very recently danced the "sacred dance," so called; and the "grass dance" has been danced repeatedly on some parts of the reservation. Still, the tone of morality has been pretty well kept up. The desire for education has increased, and the material evidences of civilization have greatly advanced.

This people would not be benefited by a transfer to the War Department. With ten thousand bushels of wheat as the crop of this year, what they need is to be led rapidly up to self-support and citizenship. Any other attempted solution of the Indian question must prove a "delusion and a snare."

All of which is respectfully submitted.

Yours, truly,

STEPHEN R. RIGGS,
Missionary.

E. H. C. HOOPER,
United States Indian Agent.

The morals of the Indians are as good as could be expected. The Sabbath is generally regarded by them as a day of rest, and more strictly observed as such than by the white settlers in the frontier towns. No intoxicating liquors are used by the Indians on the reserve. Indian dances are not very common, and generally confined to distant portions of the reservation, and are mainly on the occasion of visiting parties of Indians from other agencies. Polygamy is not uncommon; the head chief and some of the head men practice it themselves and uphold and encourage it in others.

The sanitary condition of the Indians during the year is about the same as formerly, except that there has been an unusual degree of mortality among very old people and children under three years of age.

During all the time I have been with these Indians no case of turbulence or insubordination has ever appeared, but they have always been quiet, orderly, and obedient, and generally appeared satisfied and contented (so far as I could judge by my intercourse with them), manifesting much interest in their farm-work and evidently determined soon to become self-supporting, and with their present management and an average yield of farm-product for two or three successive years, they will doubtless be in a condition to provide for themselves and families independent of government support or aid in any form, and in my judgment no greater calamity could befall these Indians at the present time than a transfer to the War Department.

Very respectfully, your obedient servant,

E. H. C. HOOPER,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

UNITED STATES INDIAN AGENCY,
Standing Rock, Dakota, August 26, 1878.

SIR: In compliance with instructions in department circular dated the 1st ultimo, I have the honor to transmit this my second annual report of the general condition of the affairs of this agency.

CENSUS.

On the 5th of last month (July) I took the census of the Indians at this agency, which was as follows:

	Families.	Men.	Women.	Children.	Total.
Lower Yanktonnais	213	218	306	330	854
Upper Yanktonnais	108	104	168	196	468
Uncapapas	127	126	185	221	532
Blackfeet	131	147	214	229	590
Total	579	595	873	976	2,444

During a portion of the past year we had 2,650 Indians dependent on this agency for subsistence, about 100 of whom we have dropped from our rolls, as they were the women and children of squaw-men living near to but not on the reservation, and about 100 more left for other agencies without our knowledge or consent and have not yet returned. The number of Indians now at other agencies that properly belong here and who are related to our tribe, will aggregate at least 1,000 persons, and for the general good and welfare of the resident Indians, as well as the absentees, we would recommend that the honorable Commissioner of Indian Affairs adopt some measures that will secure the return of such Indians to (this) their home at as early a date as practicable.

PASSES.

The order that was issued by the Indian Department prohibiting the issuing of passes to the Indians for the purpose of visiting other agencies, except in extreme cases, has been rigidly adhered to by us; but, from the number of Indians belonging to other agencies that have visited ours within the last six months, I regret to say that I think that some of the Indian agents have not paid much respect to the order. Quite a large number of Indians belonging to an agency north of this have made two visits here within six months for the purpose of receiving presents of blankets, trinkets, &c., from our people, promising them that if they would return the visit they would repay them liberally with ponies. These visits have had a bad effect on our Indians, as they became anxious to get possession of the promised ponies, and, to secure the prize, many of them have stolen away from the agency. The first stampede was made in January last, and notwithstanding I made a respectful request at that time of the commanding officer of the post attached to this agency to send a guard after said Indians, informing him that they had left without permission and in direct violation of my orders, yet the officer in command had not the civility to even recognize my request. The result of his course was that a recent visit was made by a large body of Indians from the same agency herein referred to, to our Indians, and notwithstanding we ordered the visitors off the reservation, under instructions from the Indian Bureau, quite a number of our Indians, encouraged by the action of the military in January last, got ready and left the agency with the visiting Indians; and the commanding officer now in charge of the post, Capt. H. S. Howe, Seventeenth United States Infantry, who is a very obliging and courteous gentleman, did, at my request, send a company of cavalry in pursuit of the runaways. If the regulations relating to Indians leaving their agencies without passes were enforced by the agents, and the latter were authorized to inflict some punishment, such as withholding rations for twenty or thirty days after the return to their home, of any Indians that had been absent without a pass, there is no doubt but that the disposition of these people to roam from one agency to another would weaken, and the discontented ones would soon become satisfied to remain at their agency and follow the instruction of their agent.

SCHOOLS.

We have two boarding-schools in successful operation, one for boys and another for girls; they are in charge of the Benedictine Fathers and Sisters. The daily attendance at these schools is 60 children, and if we had proper accommodations we could have at least 150 constantly in school. The progress made among the boys since the opening of their school, May 1, 1877, has been perfectly marvelous, many of them now being able to converse in English quite well, and can spell, read, write, and cipher with as much facility as the average of white children of corresponding ages that have been at school for two years. The girls are also doing remarkably well, and we expect to see them compare in their studies and advancement very favorably with the boys at the expiration of another year. Boarding-schools for Indian children at all of the agencies should be encouraged, and Congress ought to be liberal in making appropriations for their support.

AGRICULTURE.

Our Indians, with few exceptions, have worked their farms, comprising about 800 acres, splendidly this year. We estimate their crop at 12,000 bushels corn, 3,000 bushels potatoes, and 1,000 bushels of miscellaneous vegetables, a large portion of which they have already consumed in consequence of the limited quantities of supplies that we have had to issue since the early part of July. The plowing of their land early last spring, and the erection of 1,600 rods of "barbed" wire fence before the crops got above the ground, encouraged the Indians very much, and they begin to feel that the government is in earnest about aiding them in their efforts to become self-sustaining. The Indians at this agency know but little yet about handling any kind of farming implements, therefore too much should not be expected of them for some time to come. A couple of years' experience will doubtless make them reasonably good farmers, as they seem very anxious to learn how to do everything that is necessary to secure them good crops. They have now about 800 acres of good land that is in splendid condition for planting; about one-half of the land mentioned is fenced, and the remainder

should be before another crop is put into the ground, otherwise a large per cent. will be destroyed by live stock.

Our Indians have now about 400 ponies, which is not one for each family; they have 250 splendid cows that were furnished by the Indian Department, and about 300 that the War Department gave them in lieu of some 2,000 ponies that were seized by the military in the fall of 1876. While the Indians are well pleased with the cows that were given them by the Indian Department, they are not satisfied either with the number or quality that has been furnished by the War Department. Our people have cut about 300 tons of hay to aid in subsisting their cows during the coming winter, which shows a good disposition on their part to do what they can to protect the property given them by the government; but unless the department provides a much larger supply before cold weather sets in than there now has been or will be secured by the Indians, a large number of their cows will die before next spring, as the winters in this latitude are usually very severe on all kinds of live stock, but especially upon young horned cattle.

BUILDINGS.

We erected during the past year 400 feet frontage of brick buildings for agency use besides a very comfortable residence for the agent. The bricks for these improvements were burnt at the agency, and the entire work was done under contract in a good, substantial, and workmanlike manner. The buildings that have been erected here form but one-half of the contemplated plans for our agency buildings. Should the whole work be completed (and it certainly should be), this will be one of the most convenient and complete agencies in the country. We also constructed a building 25 by 52 feet of sawed logs, with a good shingle roof, pine floors, doors, &c., for our Indian boys' school, and fitted up another building of logs 22 by 48 feet for the Indian school girls' accommodation. We built a good barn and corral near the agency proper, and then other corrals for cattle within five miles of the agency. We erected, by authority from the Indian Department, fifty log houses, 16 by 28 feet, for the Indians, in each of which we put a good cook-stove, all of which pleases their possessors very much.

John Grass "Peji," the head chief of the Blackfeet Indians, resides with his people 15 miles south of the agency. He is a bright, smart, enterprising person, and deserves to be encouraged; he, with his people, with such assistance as we could occasionally give him, erected thirty-five log houses this summer, intending to occupy them as soon as the department furnishes cook-stoves to use in them.

SANITARY.

The health of the Indians here is remarkably good; they are becoming conscious of the fact that in order to have good health they must not expose themselves unnecessarily in the winter season. They have also seen the advantage to be derived in applying to the agency physician as soon as they become sick. Some very remarkable cures have been performed by our agency physician (who is a very skillful young gentleman) during the past year. His success in treating the sick Indians has given them great confidence in him, and caused a large proportion of them to abandon the treatment of the medicine men. In order to enable the physician to do full justice to the Indians in treating unusual and malignant diseases, a well-ventilated and convenient hospital should be erected at as early a date as practicable.

MORALS.

The morals of the Indians here are no doubt quite as good as they are at the Indian agencies generally, but I have no hesitancy in saying that I think it would not injure the morals of the Indians, particularly the women, if the agency was a much greater distance than it now is from a garrison. We have been obliged to make complaints on several occasions to the Indian Bureau of the frequent visits of the soldiers to our Indian camp, as the late commanding officer of this post did not seem to feel inclined to remedy the evil, but left nothing undone to discredit any and all statements made by us or our employés on the subject. We have the satisfaction to be able to state that it is now a rare thing to see a soldier in an Indian camp. The battle to accomplish this reform was a sharp and fierce one, and we are satisfied with the results.

SQUAW-MEN.

The number of these characters about this agency has not diminished, yet we do not think there has been any material increase in this class of citizens since we assumed charge here. What we have are a very great annoyance to us, and their presence has a very demoralizing effect upon the Indians. No white man, unless he is in the government service, or is employed by a government contractor, should be permitted to be on an Indian reservation, and in all cases where contractors have white men employed the agent should have a list of their names, and when such contractors get through with their work if they do not remove their employés from the reservation,

after receiving notice from the agent to do so, such agent should have the discretion to remove such persons, and, if necessary, use force to perform such duty. As it now is, a white man when he is discharged from work takes up with an Indian woman whom, for convenience, he calls his wife, and he can then defy an agent to put him off the reservation. * * * *

AGENCY STOCK.

The live stock in our charge, with the exception of one pair of horses and one pair of mules, are very poor. We have three pairs of mules that should be disposed of immediately, as they are not worth feeding, and supply their places with good, sound, young mules.

CONCLUSION.

The results of our labors since we assumed charge here will show to any unprejudiced and intelligent person whether or not we have performed our duty faithfully as an officer of the government. Our study has been to administer the affairs of our agency economically, protect the government property, and to promote the welfare of the Indians; and if we have not in every respect fully satisfied the Indian Department and the Indians, our failure should be attributed to a want of knowledge on our part and not to unworthy and base motives.

Referring you to the accompanying statistics, which have been prepared carefully, though hastily, in consequence of the pressure of business that is upon us at this season of the year, I am, very respectfully, your obedient servant,

W. T. HUGHES,
United States Indian Agent.

THE COMMISSIONER OF INDIAN AFFAIRS.

YANKTON AGENCY, DAKOTA,
August 26, 1878.

SIR: In compliance with instructions from your department, I have the honor to submit my first annual report.

I relieved my predecessor, Rev. John G. Gasmann, and assumed charge of this agency on the 28th day of April last. I found things generally at a stand-still in anticipation of a change of agents, and the spring work somewhat delayed in consequence. On the 3d of May, by order of the Commissioner, I also became acting agent of the Santee Agency, and retained charge there until the last of June.

Owing to a multiplicity of cares since my arrival here, and the absence from this office of any records of the past years, the statistical information required for an annual report must necessarily be very meager.

The *Yankton* band of the *Sioux* number now on the reservation 2,112. They are peacefully inclined, and have been uniformly friendly to the government and its citizens, even to taking up arms in its defence against their own kindred, while the other bands have often been distinguished for their hostility to the whites and frequent border wars.

By treaty of 1858 the Yanktons, then laying claim to some millions of acres in Dakota, ceded all to the government, except some 430,000 acres comprised in their present reservation lying 30 miles along the Missouri River and over 20 miles back. Its eastern boundary is Choteau Creek, some 45 miles from Yankton. The tract contains some 15,000 acres of river-bottom, timbered occasionally with cottonwood and varying from one-quarter of a mile to 2 miles in width. The remainder consists of high, rolling prairies, covered at this season with a luxuriant growth of grass, and not excelled in fertility and productiveness of soil and salubrity of climate by any land in Dakota or Western Iowa. A few years ago, owing to the extreme dryness of the seasons, the prairie lands were considered unproductive and worthless, and the bottom-lands only available for agricultural purposes; now the reverse seems to be true. The bottom-lands are too wet for tillage, and the uplands are regarded as far superior for wheat as well as corn. Formerly the Indian population was confined exclusively to the bottoms; this year they have been moving up in large numbers into the prairies, securing sites for their houses and breaking lands for next year's crops. A new impulse has seized them to take up quarter sections of land and secure for themselves permanent homesteads.

The agency farm is an inclosed field of 260 acres, lying back on the prairie 2 miles from the agency buildings, fenced with posts and boards, plowed and cultivated entirely by Indians under the direction of the farmer, who has trained them in every department of agriculture. Only one other white man, and he for a short time, has had anything to do with work in that field. One hundred and eighty acres were put in wheat, 40 in barley, and 40 in corn. The wheat crop promised 25 bushels to the acre

until the July rains with intense heat set in just before harvest time, injuring and diminishing the crop materially. The yield, however, will be over 3,000 bushels. The barley crop is fair; also the white-dent corn, considering it was so late planted. It is now demonstrated that with propitious seasons the prairie lands here will yield abundant crops, and of wheat an article equal to the best Minnesota.

Indian farming, each man for himself and on his own plot of ground, is increasing every year. Their wheat-fields will average from 5 to 15 acres each. A good breadth of corn was planted, and looks unusually promising, and they will have more than their usual supply of vegetables, including potatoes, onions, turnips, pumpkins, &c. Those with wheat-fields have shown a good deal of pluck in harvesting their crop endangered by the excessive rain-fall, cutting it with mowers and scythes and stacking it without any help from the farmers. The Yanktons are very ambitious now to raise wheat, and have been breaking much land this summer for next year's crop. Besides, they are cutting a very large amount of grass to supply their stock with hay the coming winter, exhibiting in this way more than ever providence and thrift.

Under my predecessor, Agent Gasman, sheep husbandry was commenced with a view of weaving the wool by the hands of Indian women into a material suitable for their garments. Several of them were trained to use the hand-loom, and a flannel was manufactured of excellent quality. The Department, however, didn't seem to favor the enterprise, and it came to an end. In the mean time the sheep have increased to 1,000 in number, with some 400 lambs. These are cared for by a white shepherd and an Indian assistant. They require good housing in winter, and some 200 tons of hay. Inasmuch as it is deemed inexpedient to convert the wool into cloth by Indian labor, I doubt the policy of keeping these sheep any longer. The Indians do not take to them, and between the defencelessness of the animal and the number of Indian dogs the flock could not be taken up and divided among the Indian families without soon becoming extinct. I advise, therefore, that they be sold and the proceeds be invested in cows and oxen for general distribution.

There are on the agency a flour-mill, saw-mill, tin-shop, carpenter's shop, and blacksmith-shop, and all in successful operation under Superintendent Gordon and Mr. Daly, the blacksmith. The other workmen are all Indians, two journeymen and three apprentices. Here are manufactured flour, tin and sheet-iron ware, doors, tables, cupboards, bedsteads, &c., for the Indians, and are repaired their wagons, plows, reapers, and mowers, and other instruments of wood and iron. No shops in the white settlements are kept more busy than these, and from them are turned out from time to time some excellent workmen.

RELIGIOUS AND EDUCATIONAL.

There are two missions at this agency, Presbyterian and Episcopal. The former was commenced by Rev. John P. Williamson, under the auspices of the American Board, in the spring of 1869; the latter by Rev. Joseph W. Cook, under the Episcopal Board of Missions, in the spring of 1870. These two missions have worked amicably together side by side in establishing churches and schools, and their good results have long been seen in the advancing civilization of this tribe. Mr. Williamson's mission has built and sustains two churches and three day-schools; the latter at an annual expense of \$1,100. It receives no support from government. The Episcopal mission, under Bishop Hare, missionary bishop of Niobrara, who commenced his labors among the Indians along the Missouri in the spring of 1873, and has prosecuted them with so much zeal and success, has built four church edifices; a large imposing stone structure for a boys' boarding-school, as well as one of wood for the girls. It has sustained five day-schools in addition to the boarding-schools and at an expense the last year of \$7,990, the government contributing to this sum \$2,600, and building two of its school-houses.

In the Indian schools on this and other agencies along the river it is earnestly maintained that the Indian mind cannot be properly developed or knowledge imparted to it except through the medium of the Indian tongue. I fear as a consequence that the study of English is too much neglected, and it is very rarely spoken by the children. Scarcely a child or youth on this reservation, unless reared partly in the white settlements, can speak our language. This I regard as a serious evil, and I would recommend that in all schools supported in whole or part by government, English be more thoroughly taught and exclusively spoken.

SANITARY.

There has been no physician resident on this agency for some years until the arrival here, July 13, of Dr. Z. T. Daniel. He reports the sanitary condition of the Indians, all things considered, as fair. Owing to the excessive rains and intense heat here this summer, producing everywhere a rank growth of vegetation, there have been some fevers of a malarial type and some cases of diarrhea and kindred diseases. These have in most cases yielded to medication and diet, a few cases only proving fatal. The Indians when sick are very anxious to consult the physician, and the sway of the

"medicine man" with his charms and incantations is forsaken, he himself coming up with others to be treated. When the Indians build for themselves better cabins, as they are now striving to do, and exchange their earth floors and roofs for those covered with boards and shingles, a long step will have been taken toward arresting disease and improving their physical condition.

The influence of the Spotted Tail Indians on their reservation over the river from here has been a serious evil to the Yanktons for the last six months. Government, in accordance with stipulations and to keep them quiet, fed those wild Indians to surfeit and required no labor in return, while the half-civilized and well disposed, like the Yanktons, are fed on half rations and expected to labor for the rest of their food. The argument is thus drawn in the Indian mind that the savage bands are better treated than their quiet and peaceful brothers. The recent removal of Spotted Tail and his turbulent crowd from this vicinity will work a great benefit to the Indians here.

The Yanktons have been some ten years under religious and industrial training. If their progress has not been all that could be desired in the way of civilization and self-support, yet a marked and substantial gain has been made in this direction; and it may be assumed that their improvement hereafter will be more rapid than before. The elevation of any race is of gradual progress. The Indian mind is slow to move and suspicious of any change. Between the tyranny of the sentiment of the tribe over its individual members and the want of confidence in the promises and plans of the government for their welfare, it is extremely difficult to push them beyond a certain gait, or introduce any reforms that are in conflict with their ideas and habits of life. Only by kind treatment and faithfully keeping every promise ever made them can any permanent influence be secured or retained over them.

Contrary to the popular impression, I believe that the Indian will work patiently and continuously if the fruits of his labor are secured to him: first, against the encroachments of his own tribe, who prey upon the frugal and industrious ones and eat up their substance, and secondly against the encroachments of the white man, who begins to trespass upon the Indian lands and clamor for their sale the moment they become valuable or available. The latter evil the good faith and strong hand of the government can correct; the former, a very serious one and operating more powerfully now than any other cause to discourage Indian labor, must be met by the enactment and rigid administration of a code of laws prepared by Congress for the protection of the rights of property and person among Indians against the oppression and robbery of the tribe. Wherever public sentiment demands and enforces the distribution of the property of the frugal and industrious among the idle, and practical communism prevails, there can be but very little disposition to labor and accumulate property. Let the Indian be assured that he can have a homestead of his own, and thus enjoy for himself and his children the fruits of his labor undisturbed, and he will soon demonstrate how long and well he can labor for himself, and how soon become self-supporting.

I earnestly recommend that land be allotted to these Indians in severalty, patents being issued by the government and possession made inalienable for twenty or twenty-five years. This is what they now desire. Individual possession of land and means will cultivate a feeling of pride and self-respect, will powerfully stimulate all to work, and help break up that tribal bondage which now tends to destroy all individuality of character. The church and school-house should follow them on to the prairie, around which, as a center of influence, they could gather. Better houses and fields and gardens would be the result—better homes and health and morals. Government cannot be too earnest in favoring such a policy, or too liberal in contributing toward its successful result. I am decidedly of opinion that less time and labor should be spent on an agency farm and more on the individual farms of the Indians. It were far better to teach and help them on their own farms how to plow and plant than to exhaust the available means of the agency on one large farm, however showy or successful.

SULLY'S SCOUTS.

In 1864, when the Santee Sioux were raiding and massacring the settlers of Minnesota, General Sully, at Fort Randall, enlisted in the United States service as scouts fifty-one Yankton Indians. They took the field at once against their own kindred in defense of the white inhabitants of Dakota and Nebraska, and drove back the hostile Santees. At the close of the war they were regularly and honorably discharged, but without any pay. For this they have patiently waited fourteen years. Inasmuch as their claims have been allowed by the government, and money for the same is in the possession of the Indian Bureau, I would respectfully solicit, in behalf of these deserving soldiers, that the payment of their claims be made at once and a sore grievance in their minds against the good faith of the government be forever removed.*

Very respectfully, your obedient servant,

JOHN W. DOUGLAS,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

* Since the above report was written funds have been remitted Agent Douglas for the payment of the claims of Indian scouts at Yankton agency.—COMMISSIONER.

FORT HALL INDIAN AGENCY,
Idaho, August 28, 1878.

SIR: I have the honor to submit the following annual report on the condition of affairs at this agency:

RESERVATION.

This reservation was established during the summer of 1869, under the provision of a treaty made at Fort Bridger July 3, 1868, which stipulated that whenever the Bannocks desired it, a reservation would be set apart for their use, and that the United States would secure to them the same rights and privileges, and make the same like expenditures as were provided for the Shoshones in Wyoming. At the very outset the government, to a certain extent, broke the treaty it had made with the Bannocks, by directing that all the roaming Indians in Southeastern Idaho should be allowed to come upon and make the reservation their home. For a time the Bannocks made no objections to this arrangement; they outnumbered the others, and as they were a race of buffalo-hunters, spending most of their time in the Yellowstone country, there were enough annuity goods and other supplies for all. Meanwhile the Shoshones kept coming; each year found them more numerous than the previous one. Scarcely any provision was made for their clothing and subsistence, and the Bannocks justly complained that the supplies furnished for them under the Bridger treaty were given to the Shoshones.

NUMBER OF INDIANS.

According to the several counts that have been made during the past year, there are 672 Bannocks and 1,033 Shoshones, making a total of 1,705 Indians belonging to this agency. These Indians were not all upon the reservation at any one time, 1,540 being the largest number to whom weekly rations were issued.

BANNOCK TROUBLES.

As previously stated the Bannocks complained about the Shoshones having their supplies, and looked upon them as intruders upon their lands. There was a bad feeling existing between the two tribes; the Bannocks were restless, were inclined to be quarrelsome, and were constantly committing petty thefts against the Shoshones.

After shooting the two teamsters, in August, 1877, of which mention was made in last report, no disturbance occurred until the 23d November last. On that day I sent the interpreter to the chief men of the Bannocks, with instructions to have them come to the office, and bring Pe-tope, the Indian who had shot the two teamsters. They all came as directed. I then informed them it was necessary that Pe-tope should be turned over to the proper authorities, for trial, giving good reasons why it should be done, to all of which they assented. The prisoner was delivered to the deputy marshal, at the trading-post, at about 3 o'clock p. m., who took him to Malad City. Quite a number of Indians had gathered around the store, but no resistance or opposition was made by any of them. The thing had been done so quietly that I anticipated no further trouble. About an hour after the marshal had left, I received a note from the trader stating that a Bannock Indian, friend of the prisoner, had just shot dead Alex. Rhodan, a young man engaged in delivering beef-cattle, and that the Indians were acting very badly. I immediately went to the store, but, upon arriving there, found the Indians had all left. There was considerable excitement in their camps, and, thinking they intended further mischief, I telegraphed the commanding officer at Fort Hall for assistance.

Early the following morning Captain Bainbridge came over with fifteen men. A large number of Indians of both tribes were at the office. We told them they must arrest Nampe-yo-go, the murderer. The Shoshones replied that if he had been one of their tribe they would have arrested him at once, but as he was a Bannock he should be arrested by his own people. The Bannocks present said they would make the arrest, and started out to do so. They returned at night, reporting that Nampe-yo-go had been joined by his father and two brothers, and that they had escaped to the west side of Snake River. They made several other attempts, but always returned without their man. I became convinced that they either did not want to or else were afraid to make the arrest. There was no doubt in my mind that the majority of the Bannocks were hostile. They were well mounted and armed, and unless held in check by a military force, would be very troublesome during the winter, and surely go on the war-path in the spring. There were more Bannocks here than there had ever been at any one time, and they were as wild and untamable as could be; therefore, on the 26th November, I telegraphed you asking for one hundred soldiers to be sent to this agency. Three companies Fourteenth Infantry arrived here on the 5th December. Major Bryant, the commanding officer, immediately held a council with the Indians, and told the Bannocks he wanted Nampe-yo-go in ten days. At the end of the ten days they reported that he could not be found.

General John E. Smith arrived here on the 26th December, and held a council with the Bannocks. He urged upon them the importance of their bringing in the murderer at once, stating that unless they did so they would be looked upon as having broken

their treaty, and would be considered hostile Indians. He was untiring in his effort to have them bring in the culprit, but they would not.

Captain Bainbridge having received information about the 9th of January that a suspicious looking Indian had been seen at Taylor's Bridge, proceeded to that point and arrested him. Upon arriving at the post the Indian was identified as the murderer of Rhodan, and held for trial. Since that date he has been tried, found guilty, and hung.

On the 15th January, Major Heart arrived here with three companies of cavalry. General Smith immediately organized his troops in two columns, and at day-light on the morning of the 16th surrounded two of the Bannock villages, numbering 32 lodges, capturing 53 warriors, 32 guns, and about 300 ponies. Their best guns, pistols, and ponies could not be found. The prisoners were marched to the agency, the rather and two brothers of the murderer sent to Fort Hall, and the balance of them, after being addressed by General Smith, were allowed to return to their camp. If all the Bannocks had been gathered in at this time, and sent out of the country as recommended, there would have been no Bannock war. As it turned out, they were only exasperated and patiently waited their time to seek revenge upon the whites.

Early last spring the majority of them left the reservation, there being insufficient food to keep them upon it, and in the latter part of June commenced killing people on Camas Prairie, which was the commencement of the present war.

SHOSHONES.

The Shoshones are a peaceful, well-disposed tribe. They are willing to work, and with proper encouragement can soon be made self-supporting.

INDIAN FARMS.

The amount allowed last year for agricultural implements enabled me to purchase a very good supply of these articles for farming operations for this season. One hundred and twenty-five families have put in crops for themselves, an increase of fifty-five families over those thus engaged last year. They have cultivated 400 acres of land, 350 of which were seeded with grain, the balance with potatoes and other vegetables. Eight families located near Emigrant Rock have broken up, cultivated, and fenced 35 acres of land. Eight families located on the Port Neuf have broken up 16 acres. Those who located on Bannock Creek last season have made large additions to their farms, fences, and ditches. Several Bannocks after putting in their crops deserted them and left the reservation, but their crops were taken possession of and cultivated by others, who are now reaping the harvest. The total of their crops is estimated as follows: wheat, 6,000 bushels; oats, 100 bushels; potatoes 5,000 bushels; turnips, 50 bushels; onions, 10 bushels; hay, 20 tons.

AGENCY FARM.

Seventeen acres have been cultivated by the government, as follows: 12 acres in grain, 5 acres in potatoes and other vegetables. The crops are estimated as follows: 160 bushels of wheat, 200 bushels oats, 500 bushels potatoes, 100 tons hay.

STOCK-CATTLE.

The agency has a small herd of about 350 head of stock-cattle, which is maintained at an expense of only \$240 per annum for herding. During the last fiscal year this herd furnished the agency with 121,448 pounds beef, gross, worth \$2,428.96. This year's increase will replace the cattle that were killed last year.

It would be economy if the government would purchase, say, 500 head of good stock-cows; with that number added to the present herd, in three years' time it would furnish all the beef required for agency use, and another object would be attained toward a self-sustaining reservation.

AGENCY BUILDINGS, &C.

Plan and specifications for a boarding-school building were submitted last year, but owing to the insufficiency of subsistence the funds intended to be used for the erection of this building, except a small amount for delivery of saw-logs, had to be used for purchasing additional food.

The water saw-mill mentioned in last report has been put in order. The turbine wheel was purchased from funds received for pasturing cattle, and the mill put up without any additional expense to the government. Eighty thousand feet of lumber has been sawed at this mill, and the lumber is now being hauled to the agency. The grist-mill, planing and shingle mills are in good repair, and all of the frame buildings. The two log buildings, one occupied as warehouse and one as farmer's residence, are miserable structures, and should be replaced by good substantial frame houses.

BOUNDARY LINES.

According to the metes and bounds specified in Executive orders dated respectively June 14, 1867, and July 30, 1869, the Malad range of mountains is the southern bound-

any line, but according to the treaty made with the Indians by the special commissioners November 7, 1873, the line was fixed at a point about 25 miles north of the previous one, cutting off the whole of Marsh Valley. This latter treaty, however, was not ratified by Congress, consequently it failed to become a law; and, according to my understanding of it, the original lines have not been changed.

The Utah Northern Railroad has placed its terminus in Marsh Valley. A town has been built, where whisky is sold by the wholesale. On the 26th June last this matter was represented to the department, but no action has yet been taken. In addition to this, the railroad is now being constructed upon that portion of the reservation where there can be no dispute as to boundary lines, and the officials claim they have the right of way by act of Congress approved June 20 last. How this right of way can be given without a direct violation of the Fort Bridger treaty I fail to see. This boundary-lines and this right-of-way business should be settled at once.

For sanitary condition of agency I respectfully refer you to report of physician, inclosed herewith.

Very respectfully, your obedient servant,

W. H. DANILSON,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

LEMHI INDIAN AGENCY, IDAHO,
August 1, 1878.

SIR: I have the honor to submit the annual report of this agency, having under its charge those Indians known as *Mixed Shoshones*, *Bannacks*, and *Sheepeaters*. As but three weeks have expired since I took charge, I trust any deficiency in details will be overlooked, though I have endeavored to secure sufficient reliable data to afford a comprehensive view.

The year has been one of turbulence and fear both to the settlers near and the Indians on the reservation, owing principally to the hostilities in progress in Western Idaho and Eastern Oregon. There are doubtless some of the Indians belonging to this reservation who would join the hostiles had they the means and the facilities for doing so, but I am gratified to learn, their number is comparatively small, and these are securely held in check through the persistent efforts and widely-spreading influence of Ten-Doy, their chief, who, under the counsel of the whites, appears to have proven himself master of the situation. So great had become the trepidation among the settlers in this immediate vicinity that they abandoned their homes and built stockades at either end of the valley for security. The danger from this source, at least, appears, however, to have passed, and the settlers have nearly all returned to their usual vocations.

I have been unable to obtain the definite number of each class of Indians who have been assigned to this agency, and am therefore obliged to estimate, but believe the figures are very near the exact number. They are as follows, viz: Mixed bloods, including half-breeds, 385; Shoshones or Snakes, 252; Bannacks, 129; Sheepeaters, 184; total, 950. In consequence of the frequent influx and efflux they are never all here at one time.

Great dissatisfaction is manifested in regard to the quantity of supplies. These Indians are in the habit of intermingling with those of other tribes, especially while on their annual excursion to the Yellowstone, and learn from them of the more liberal supplies dealt out at other agencies. Taking our supply-reports as a basis there has been an average attendance of 442 Indians here during the past year, and the annual appropriation of \$20,000 for such goods, provisions, and other articles as may be required in instructing the Indians in agricultural and mechanical pursuits, in providing employes, educating children, procuring medicine, and medical attendance, care and support of the aged, sick, and infirm, for the helpless orphans of said Indians, and in any other respect to promote their civilization, comfort, and improvement, is an allowance of \$45.25 per annum, or 87 cents per week for each Indian for all the expenditures above mentioned. It is obvious that this amount can never satisfy them or meet the objects in view while so many have claims upon this agency.

The reservation is said to contain 100 square miles of land, yet a comparatively small portion of it is available for farming or grazing purposes, the remainder being covered with mountains or high tablelands upon which no water can be had. All kinds of crops are dependent on irrigation. It is situated about the middle of the Lemhi Valley or Cañon, 12 miles in extent, with settlers at either end. The Indians are dissatisfied with it and have earnestly requested that the reservation be extended or they be removed to the Madison in Montana. The agency buildings are located at the extreme southern end of the reserve.

The first farm, one mile from this office, contains about 100 acres, 40 of which are now

under cultivation, and I am informed will probably yield 50 bushels of wheat, 100 bushels of oats, and 100 bushels of potatoes. If this estimate is verified it will surpass the expectations of the neighboring settlers, whose crops have been almost destroyed by grasshoppers.

The second farm, eight miles from the office, also contains about 100 acres; the ground is under fence, broken, and ready for use, and perhaps 6 acres in potatoes, belonging to Ten-Doy, chief, and Teatoba, subchief, with but little prospect of success. There is much more land here that could be utilized for farming purposes, and I will endeavor to do all the farming during the present fiscal year that the limited resources at command will permit, as there appears to be a desire on the part of a number of Indians to engage in farming and other useful pursuits.

Several of them have expressed a desire to abandon their lodges if houses could be provided for their accommodation, and as this is an important step in the way of civilization, they should be encouraged and their wishes gratified. They would thereby become more strongly attached to their homes and have less facilities for roaming than at present. There is an admirable site for a water-power saw-mill near the agency, and abundance of timber in the mountains near by, so that an unlimited quantity of lumber could be had for the erection of such houses as they may need at a small expense. Nearly all the manual labor required to cut and haul the saw-logs and handle the lumber after being sawed could be done by the Indians themselves, and I have no doubt they would soon learn to handle the machinery and the saw.

I exceedingly regret the fact that no school has been organized at this agency, and I fear none can be at present, on account of the limited appropriation, as appears from the tenor of your letter dated February 5, 1878. If colored children can make such rapid progress as is now acquired in the public schools of the different States, certainly the mental faculties of Indian children are susceptible of like culture, as has been plainly indicated by the schools at other agencies; and it is a burning shame that they are permitted to grow up in ignorance when the ability to read and write, if nothing more, could be procured at a nominal expense. I am informed that *not one* Indian assigned to this reservation can either read or write in his own or the English language. There is now a suitable building here which could readily be put in order and used for this purpose.

The general health of the Indians during the year has been good; no epidemic has prevailed, and the only difficulty of a serious nature has arisen as the result of their own personal vices. There have been treated for all physical ailments during the year, 337 cases, 8 of whom have died and 141 have recovered. Many others have left in a convalescent state. The "medicine man" has lost some of his once-cared-for proclivities, and they now clamor after the white man's medicine and his physician.

The Indian police have just been organized, and will prove of value after they fully comprehend the object of their employment.

Upon visiting the different lodges, a few days after my arrival, for the purpose of taking the census, I discovered gambling going on in several of them, the stakes being rather formidable-looking metallic cartridges; and an earnestness was exhibited worthy of a better cause.

I am loath to inform you that no missionary effort has been made during the past year, and yet I do not know of a better field of labor than this agency. Certainly American people should prefer to put forth efforts for the salvation of heathen and wicked men on our own soil rather than expend so much in Africa, India, and other remote parts of the earth, while these people are so utterly neglected.

Very respectfully, your obedient servant,

JOHN A. WRIGHT,
Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

NEZ PERCÉ INDIAN AGENCY,
Lapwai, Idaho, August 12, 1878.

SIR: I have the honor to submit the following as my eighth annual report of affairs at this agency:

During the past year the reservation Indians have been unusually quiet, as also industrious. The departure of the non-treaty element from this section of the country resulted in good to the treaty portion of the tribe, who are endeavoring to live a civilized life, and their attempt so to do is no failure. A few restless Indians still remain, but seldom come on the reserve to create trouble.

AGRICULTURE.

A number of Indians at Kamiah lost their crops, fences, and some of their farming implements and harness last year by fires started by hostile Indians. To such I furnished a new supply of such things as they actually needed.

In my "statistical report" it will be seen that, under the head of agricultural products, my figures as to amount of wheat raised is less than that of last year. Also the amount of cultivated acreage, which is explained as follows: Last year, in making my annual reports, I embraced all *Nez Percé* Indians, those living outside the reserve as well as those living on the reserve, in said reports, and the result of their labors formed a part of said reports, while this year I confine myself to reservation Indians and the reserve. I estimate the number of *Nez Percés*—men, women, and children—living outside the reserve at 500. This does not include any of Joseph's or White Bird's bands. According to the census of this tribe, there are living on the reserve, viz: men, 348; women, 427; boys, 188; girls, 193; total, 1,156. The amount of cultivated acreage is estimated at 3,022 acres, same cultivated by Indians. For the products of the same, see statistical report.

The crops this year are not as heavy as was expected, on account of dry weather; still we can not complain. The Indians will have enough for themselves, and a handsome surplus to dispose of. The funds received from sales of their surplus is generally judiciously expended, many purchasing their winter's supply of groceries, clothing, &c. There are many who think these Indians are in a measure subsisted by the government. On the contrary, since I have been here they have never received any rations from the government, but have always subsisted themselves; and in comparing my eighth "statistical report" herewith with my first one, I have cause to feel encouraged, so far as pertains to my efforts to elevate and advance this people in civilized pursuits. For the benefit of those who would like to see the result of such comparison, I copy, viz:

From my first report, 1871:

	Acres.
Cultivated acreage	1, 055
Bushels wheat raised.....	7, 500
Bushels corn raised.....	1, 500
Bushels oats raised.....	3, 400

From my eighth report, 1878:

	Acres.
Cultivated acreage.....	3, 022
Bushels wheat raised.....	20, 000
Bushels corn raised.....	3, 500
Bushels oats raised	6, 500

There are about 3,000 fruit trees now growing, that were set out by the Indians on their respective farms, and in the course of two or three years they will have an abundance of apples, pears, peaches, plums, &c. In addition to the above number of fruit-trees, many Indians have quite a number of young trees. One Indian tells me he has a young nursery of about 2,000 trees.

EDUCATION.

During the year there has been an average attendance at the boarding and lodging schools of 48; the largest attendance during any one month being 52. We have endeavored to give the scholars a practical education, as well as that in books. The progress has been slow. The boys have been instructed in agricultural pursuits in addition to the instruction received in the school-room. Their teachers are practical farmers, and in the proper seasons have had the boys planting and taking care of the agency farms and school-gardens, and when the time comes to gather in the vegetables, &c., they will be engaged in such work. The matrons direct the girls in general housework, making and repairing their own, also boys' clothing, and cooking. There is not the interest manifested, generally, that I would like to see. The progress made in book-learning, outside of reading and writing, is slow. Some of the larger boys have learned to make shingles and milk cows.

A day-school, under the direction of Miss S. L. McBeth, was opened last October. She has had in attendance from 4 to 12 young men, who are preparing to be teachers and ministers. She is doing a good work. She is an appointee of the Presbyterian Board of Foreign Missions, and by said board maintained.

MISSIONARY WORK.

I am sorry to say that the missionary work on this reserve has been very limited. There has been no minister located here as missionary for over two years, but we have received frequent visits from ministers, who have, from time to time, received into the church such as desired to join. In giving the number of members of the church in my statistical report, I take the same from figures published by the board of missions in its report. The usual interest in religious matters is manifested.

INDUSTRY, CIVILIZATION, &C.

The disposition on the part of these Indians to increase their cultivated acreage, and show more industry, is quite marked. They have cut nearly 400 saw-logs, which

will be sawed into lumber for houses, fences, &c., as soon as I can obtain a suitable man to run the mill. I am cramped somewhat in the way of funds, and the figures at which mechanics in this section of the country hold their services is greatly underrated by the Interior Department.

Indians can command higher wages by from 100 to 200 per cent. more than the department is willing to allow them as day-laborers in this section. The department is willing to pay only 50 cents per day for Indian labor, and the Indian must board himself. Such as are capable of performing work in the harvest-field, assist in logging or cutting wood, can command from \$1 to \$2 per day. Yet the department expects me to encourage the Indians in industry by offering them 50 cents per day, and board themselves, whenever Indian labor can be made a substitute for white labor in the force of employes. Such encouragement only gives the Indian an opportunity to ridicule the government.

MATTERS IN GENERAL.

During last May these Indians received from the War Department something over \$5,000 in payment for horses and supplies furnished General Howard's command during last year's hostilities. They have also received from wood sold (individually) about \$1,500, nearly all of which was received by the better class of Indians, who made good use of it.

There is little or no gambling done on the reserve, at least none coming under my observation. Very little drunkenness reported compared with former years. Such cases as have come to my notice have been summarily dealt with. My mode of punishment has been to confine the guilty party in the guard-house at Fort Lapwai for thirty days, with a request that he be kept at hard labor during that time, and take one horse to pay for his board. The horse is sold and proceeds paid into the hands of the commanding officer of the company which furnishes the rations. This mode has proven to be a success. The loss of the horse is the heaviest part of the punishment.

The general health of the tribe is good.

In conclusion, I would say I have no reason to feel ashamed of the present condition of the Indians under my charge. The advancement made in civilized pursuits is certainly encouraging.

I am, sir, very respectfully,

JNO. B. MONTIETH,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

OFFICE UNITED STATES INDIAN AGENT,
CHEYENNE AND ARAPAHO AGENCY,
Darlington, Ind. Ter., August 31, 1878.

SIR: In compliance with department instructions, I have the honor to submit the following as my seventh annual report of the condition of the service at this agency, being for the year ending August 31, 1878.

STATISTICS.

The following table will show the number of Indians attached to this agency:

Name of tribe.	No. of men.	No. of women.	No. of boys.	No. of girls.	Total.
Cheyennes	820	1,050	687	741	3,298
Arapahoes	507	466	364	419	1,756
Total at agency	1,327	1,516	1,051	1,160	5,054
Cheyennes at school, Hampton, Va.					8
Arapahoes at school, Hampton, Va.					1
Cheyennes at school, Syracuse, N. Y.					2
Arapaho prisoner, Moundsville, W. Va.					1
Total belonging to agency					5,066

About the 15th of November the majority of the Indians left the agency on the usual annual buffalo-hunt. At the date of leaving the prospect for a successful hunt was reported to be good by parties who had just arrived from the buffalo country, but on arrival at the ground it was found that Indians from reservations east and south of this agency had already been at work, and the buffalo but few in numbers; and having waited

in vain for the buffaloes to return to the range, much suffering ensued in consequence, and with much trouble and expense the Indians were brought back to the agency. But few robes were obtained, and those only by parties who, having plenty of stock, could leave the main body and travel quickly, picking up one here and there. The conclusion reached as the result of this hunt is, the conviction that in the future the Indian must rely upon tilling the ground as the principal means of support, and if this conviction can be firmly established the greatest obstacle to advancement in agriculture will be overcome. With the buffalo gone and their pony herds being constantly decimated by the inroads of horse-thieves, they must soon adopt in all its varieties the way of the white man, by exchanging small ponies, worthless except for riding, for a smaller number of large animals, horses or mules, suitable for work. These they will learn to stable, and thus guard them against theft. The usual amount of horse-stealing has prevailed and the few cases of successful pursuit have only increased the boldness of the thieves and the number of the thefts. Until some other system of law is introduced we cannot hope for a cessation of this grievance.

On January 1, 1878, in accordance with the orders of the department, a cash system of trade was inaugurated and has worked well, since its merits have become understood by the Indians. The average price of robes under this system is about \$3. As a consequence of the unsuccessful hunt, only 219 robes were sold to the traders. They have brought to the agency, however, 640 buffalo-hides to be tanned by the Indians, for which they have paid in cash \$1.50 each. This help has been of material assistance to the Indians in supplementing a reduced and insufficient ration, and the Indians have appreciated the opportunity the trader has afforded them to earn this money.

INDIAN FARMING.

Under the management of head farmer, J. A. Covington, the Indians have this year cultivated 600 acres of land, and there has been added to this amount of broken land the following:

	Acres.
Broken present year by government.....	314
Broken present year by Indians.....	150
Total new land broken	464
Total of acres now broken, old and new land.....	1,064

Agricultural implements were purchased in April last under contract, but did not reach the agency until the end of May and first of June. Had they been received in time a larger amount of land could have been reported; as it is, there can be no excuse why as much more land cannot be broken the coming spring. The present season has been a very propitious one in all respects, frequent showers in proper season insuring a fair crop to all who worked.

On the 27th of April, 1878, all but eleven of the Cheyenne and Arapaho prisoners for the past three years held as prisoners of war at Saint Augustine, Fla., were returned to the agency, the excepted eleven being sent to school at their own desire; two at Syracuse, N. Y., and nine at Hampton, Va. The return of these people has had a good effect and has stimulated afresh the desire these Indians have manifested to engage in the pursuits of civilized life. The exertions of one of these returned prisoners (Howling Wolf) have resulted in more than twenty of his friends and relations adopting the dress, habits, and ways of whites. These people are doing good work, and the policy of restoring them to their tribes has proved a success.

INDIAN POLICE.

Under instructions from the department, the majority of the returned Florida prisoners have been organized into a police force and they have shown an entire willingness to carry into effect all orders given to them. This force has obviated the necessity of calling upon the military in many instances. To give each tribe a proper representation in this force, five Arapahoes were added in addition to the prisoners from Florida. The force now numbers seventeen, as follows: One captain, one lieutenant, three sergeants, and twelve privates.

MANUAL LABOR BOARDING-SCHOOL.

This school has been during the past year under the management of Jno. H. Seger, whose ability for the position has been signally shown in previous years, and the progress made has been gratifying and fully commensurate with previous terms. The education given has been practical and with a view not so much to cram the children with statistical knowledge as to fit them for the duties of life which will devolve upon them as men and women, whose state will be far in advance of what their fathers' was.

The herd of cattle belonging to the school is constantly increasing in numbers and value, and is now as follows:

	Value.
Per last report, 211 head of all kinds	\$1,882 00
On hand at present report, 359 head.....	3,332 00
Which shows an increase of 148 head.....	1,450 00
Derived as follows—	
By increase in value by growth	\$500 00
By increase in stock, 100 calves	500 00
By donations.....	142 00
By earnings of school and sales of pork.....	442 00
By value of ponies bought.....	110 00
Total	1,674 00
Less 6 head died and 10 head turned over to boys leaving school.	224 00
	1,450 00

Two bulls of good blood have been donated during the past year by Mr. A. E. Reynolds, of Camp Supply, Indian Territory, and one by Robert Bent of this agency. The school is also indebted to Mr. A. L. Earle, of New York, for a donation of \$17, which, with the funds derived from other sources above specified, has been expended in the purchase of 58 yearlings. Of the 359 head of stock of all kinds, 53 head belong to individual school children, the balance being common property and a nucleus from which it is hoped to make this school self-supporting in a very few years. For this all our efforts have been made, and should no unforeseen accidents arise, the end we aim at will be surely attained in a very short time. The herd is now getting to be of that size when the yearly increase will rapidly multiply its value and the ratio of profit in the future will be ten times that of the past.

SUPPLIES.

As a general rule, the supplies furnished the past year have been of a better quality than was the practice of furnishing the Indian Department a few years ago, and the transportation service has increased in vigor, so that but little fault can be found in either the quality of the supplies or the transportation, although the quantities have been very limited; as yearly the crops increase, the reduction of rations can be better borne than just at present, when tilling the soil is in its infancy and buffalo-hunting meets with no success, the ration issued being about the sole dependence for existence.

EMPLOYÉS.

While I appreciate the force of the policy of the department to obtain the labor required at the different agencies at a minimum cost, I yet cannot believe a sound policy will dictate the necessity of reducing wages so low that competent employés cannot be secured for the pay allowed. Whatever may be the case at other agencies, it is certainly a fact at this, that only the experienced employé is able to effect any results with these Indians. They must first learn to trust the man before they will accept the teacher.

With the present fiscal year, a reduction of salaries of some of our most competent employés occurred, and it was a difficult matter to reconcile them to work at the reduced wages. With this exception, our employé force is now in a very efficient condition, and I am indebted to them in no small degree for the very marked advancement visible among the Indians.

SANITARY.

The intense heat of the present summer has had the effect to increase the mortality, and it is no exaggerated estimate when the number of sick people on the reservation is placed at 2,000. Many deaths have occurred which might have been obviated had there been a proper supply of anti-malarial remedies at hand. Ninety-five ounces of quinine were received in advance of the annual supply and was consumed in less than ten days. The success of the agency physician has been gratifying, and the only cause of ill-success has been due to the lack of medicines. Hundreds applying for treatment have been refused medicine, and the result has been a resort to their native medicine and the perpetuation of their superstitious rites.

NORTHERN CHEYENNES

This portion of the Cheyenne tribe numbers 970 people, for whom but few words of commendation can be said. About one-half refuse to affiliate with the Southern Cheyennes, invariably camp by themselves, and away from the others, and act in all respects as if a different tribe. They have shown no desire to engage in farming, and in council and elsewhere profess an intense desire to be sent north, where they say they will settle

down, as the others have already done. No difference in the treatment of Indians has been made; all are required to do certain things, but the spirit of compliance on the part of these Indians has been of an entirely different nature from that of the other Indians. It may become necessary in the future to compel what, so far, we have been unable to effect by kindness and appeal to their better natures.

TRANSPORTATION.

For the first time since my connection with this agency, now nearly seven years, I can report the receipt of annuities before the departure of the Indians on the winter hunt. This was due to the organization of the Cheyenne and Arapaho Transportation Company, which made four trips to Wichita, Kans., before January 1, 1878, and one since, bringing to the agency the annuity goods in time to issue before the hunt.

The total cost of the train and expenses of the five trips made, was \$6,150.20. The amount of freight hauled was 318,433 pounds, besides which a portion of the train brought the Florida prisoners from Skeleton Creek to the agency, saving to the government about \$100. The value of the freighting done at last year's contract rates is \$6,687.09; to which add Florida prisoners hauled, \$94.50, and we have a total earned of \$6,781.59, being an excess over cost of \$631.39. While the feasibility of Indians hauling their own supplies has been fully demonstrated, I am not prepared to recommend a continuance of it, until other agencies in the vicinity also adopt the system, as these Indians are led to believe that the wagons they now own would have been supplied, or at least a portion of them, in any event, since issues of wagons have been made where supplies have been hauled by contract. They will, however, engage in freighting the present year, where they can be paid for it at the same rates that white freighters receive, and since last year's work has given them the means to do so, the appreciation of their labor then will follow with the money they are now able to earn.

RELIGIOUS INTERESTS.

Religious meetings have been held regularly, twice each Sabbath during the past year, attended in the morning by quite a number of camp Indians. These have been faithfully taught the cardinal principles of Christianity by the agency employes, and at different times by regularly ordained ministers, and we believe the seed thus sown has not been cast on stony ground, but planted firmly in good soil, whereof the future will bear the harvest. To our friend Elkanah Beard we are indebted for much comfort, and strengthened by his presence and labors, as well as to Lawrie Tatum, for his work of love among us.

CONCLUSION.

Reiterating previous statements that my desire is to promote the welfare of these people by using every faculty given me to promote their civilization and self-support, and gratefully acknowledging the support and interest of the department, and above all the support of Him without whose approval all our efforts must have been unavailing, I have the honor to subscribe myself,

Very respectfully, your obedient servant,

JNO. D. MILES,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

Report of farmer at Cheyenne and Arapahoe Agency.

CHEYENNE AND ARAPAHOE AGENCY, INDIAN TERRITORY,
August 25, 1878.

SIR: In accordance with your request I submit the following statistical report of farming among the Cheyenne and Arapahoe Indians for the past year:

Number of acres cultivated during the year:

Arapahoes	480
Cheyennes	120
	600

Number of acres broken during the year:

By government	314
By Arapahoes	108
By Cheyennes.....	42
	464

Number of acres under fence	520
Rods of fence made during the year.....	51,200

Produce raised—growing crops estimated:

Arapahoes:			
Corn	bushels..	9,600	
Potatoes	bushels..	360	
Melons	number..	3,000	
Pumpkins	number..	1,750	
Cheyennes:			
Corn	bushels..	2,400	
Potatoes	bushels..	120	
Melons	number..	1,800	

A considerable quantity of garden produce was raised, such as radishes, turnips, tomatoes, pease, cucumbers, squashes, and cabbages, but was consumed before maturity, so that I find myself unable to estimate, as to quantity, with any degree of fairness or certainty. The arrival of garden seeds at the agency was so late as to seriously retard this branch of home industry.

Five trips to Wichita, Kans., were made with the Cheyenne and Arapaho wagon-trains, and although failing in two of the trips to secure full loading, the following amount of freight was successfully transported to the agency, 165 miles:

	Pounds.
Arapahoes, five trips	176,133
Cheyennes, five trips	142,300
Total	318,433

Owing to the scarcity of seeds, facilities for breaking prairie, and farming implements generally, we have been able to assist only about one-half of the aspiring young farmers of these two tribes, who are rapidly realizing the benefits to be derived from agricultural pursuits.

Very respectfully,

J. A. COVINGTON,
Head Farmer.

JOHN D. MILES,
United States Indian Agent.

KIOWA AND COMANCHE AGENCY, INDIAN TERRITORY,
August 15, 1878.

SIR: In compliance with instructions contained in circular letter of July 1, 1878, the following is respectfully submitted as my first annual report of the condition and affairs of the agency under my charge for the year just past.

Having relieved my predecessor, Mr. J. M. Haworth, so late as the 1st day of April last, I will not be able to present to you a statement that may prove to be as full and as accurate as is desirable. But I shall endeavor to detail all the more important events of the year; and while imparting information as to the character and extent of progress made, I will present as clear a view as I can of the condition, habits, and disposition of the Indians over whom I have been placed.

It is shown by the census recently taken that the Indians of this reservation number: *Comanches*, 1,475; *Kiowas*, 1,120; *Apaches*, 344; in all 2,939, of which 802 are men, 1,166 women, and 971 children, divided into 345 families.

Since the trouble of 1874 these Indians have been at peace with the whites, and have shown no disposition to move from their reservation. While many of them complain that the western boundary-line of the reservation has been drawn in too close, contending that it should be even far beyond the 100th meridian of west longitude, and that the settlers upon the Pan Handle of Texas are encroaching upon this territory, they manifest no disposition to violate orders by crossing the line.

It having been ascertained that the monuments that mark this line, the boundary between the Indian Territory and the Pan Handle of Texas, and which lies on the 100th meridian of west longitude, had disappeared, General Davidson, commanding at Fort Sill, during the month of April last ordered Maj. A. W. Allyn, of the Sixteenth Infantry, to run over the line and replace the monuments. It was thought advisable that some prominent chiefs of the different tribes of this reservation should accompany the expedition, that through them the exact location of the line marking the western limit of this Territory might be made known to their people, and then possibly in the future a collision between settlers and Indians might be avoided. After some trouble in securing the number, in consequence of a fear or suspicion in the minds of the Indians that it was a plan laid by the whites still further to contract their territory, four were prevailed upon to go, viz, Chevers and White Wolf, both Comanche chiefs, and Running Bear and Am-o-tah, both Kiowas; the former a chief,

and the latter son of Frizzle Head, a chief. They witnessed the erection of the monuments, and through the interpreter, while on the line, they were told that west of the line the land belonged to the State of Texas, and that to the east to the United States, and that no Indian would be permitted to cross the line into Texas.

With the exception of Satanta and Little Bull, both prisoners in Texas, and Esato-it at Fort Smith, all the Indians of the reservation who were being held as prisoners, as punishment for their various offenses, have recently been released; and all these except one Comanche and eight Kiowas, who are at school at Hampton, Va., and Syracuse, N. Y., are living again with their people.

On the 1st day of May seven Comanches and thirteen Kiowas were returned to me from a three years' confinement at Fort Marion, Fla., having been incarcerated there for participating in the outbreak of 1874. There has been a very great change in these people, not only in their appearance, but a complete and thorough reformation in every particular. Their profession of a thorough reform I believe to be sincere, and I have the highest hopes of their future good conduct, and of good results to follow their example and teaching.

On the 1st day of August, the military turned over to my charge 48 Qua-had-a Comanche Indians, who had been held as prisoners during the past year. They had broken away from the reservation, and refusing to return, were captured and brought back by the troops. The military have opened for them a farm about four miles from the post, upon which there is a well-fenced field of 80 acres, now in corn, and have erected two good and comfortable dwelling-houses. Only eighteen of these people are willing to remain on this farm, in consequence of the unfortunate occurrence of last month, which resulted in the killing upon the premises of two of their number, their custom being to desert or to move from any place at which one of their friends or family has been killed or died.

Some time during the past winter one of the prisoners entered the tent of the guard at night, and attempted to assassinate one of the soldiers. On the 26th of July, a deputy United States marshal came from Fort Smith with a *capias* for the arrest of this man and two other Indians charged as being accessories. The principal, who escaped at the time of the assault, had been arrested and brought in by Quanah, a young Comanche chief, and was in the post guard-house, but the other two Indians were at large in the camp at the farm. The post-adjutant, the interpreter, and marshal proceeded to the farm to make the arrest of these two. The small guard placed at the farm having been ordered out under arms, the Indians were told by the interpreter the object of their visit. At first it seemed as if they would quietly submit, but after reaching the lodge of the medicine-man, and listening a few moments to him, they declared they would not go. This determination they persisted in, being urged to it by the medicine-man. In obedience to orders from the officer commanding, a large negro teamster who was present attempted to seize and hold the medicine-man, while others were to club and secure the other two Indians. This failed, and the three Indians immediately attacked the party with knives, which it is believed had been concealed about the person of the medicine-man, as he was seen to pass a knife to each of the others. The adjutant, interpreter, marshal, and soldiers commenced firing, and soon the three Indians fell, the medicine-man wounded, and the other two killed. For a while after the killing it was believed that serious trouble would grow out of this, but, to the surprise of most persons, the Indians have not been much excited, a fact which, I think, indicates that they do, to a certain extent, recognize the supremacy of the law.

AGRICULTURE.

When I reached the agency in April, the Indians were actively engaged in breaking and preparing the ground for planting. This I found quite an undertaking, as their ponies, besides being small, were very poor, and the ground very hard from want of rain and from being trodden during the winter by their stock; the fodder stalks having been left standing, and the fencing down, they were permitted to feed upon their fields. This I shall endeavor to prevent next winter, and have them plow their fields late in the fall or early in the winter, before their ponies lose their flesh.

Heretofore corn has been planted for the most of them, with the planter, and I found it was expected this year. They protested strenuously against undertaking it themselves, pleading their inability to accomplish it, and the fact that they had been promised it should be planted for them, and for a while it seemed as if they would hold out in their refusal. A few, however, attempted it, and others seeing how well they did, all were soon planting, being instructed by two farmers and two irregular employes engaged for the purpose. Many of them were entirely ignorant of the process, and the most difficult part was in running a straight furrow, as both themselves and ponies were very awkward. Sometimes would be seen three Indians with one team, one at the head of each pony and another hold of the plow. Various improvements upon the white man's plan were suggested. One fellow, having

made several ineffectual efforts at a straight furrow across his field, stopped at the end of a row and casting his eyes back at his work exclaimed "no good," and unhitching hurriedly one of his team and mounting he galloped off, apparently in disgust at his efforts at following the white man's way. He appeared, however, before a great while with a coil of rope, which he had purchased at the store, and this he soon had stretched across his field as a guide to his plow in marking the ground. Considering the fact that the ground was exceedingly cloddy, with all other circumstances, they succeeded, I think, remarkably well, the majority of the rows being so they could be cultivated with the plow.

The prospect the first of the season was very bad, as no rain fell on most of the fields until the 23d of May, and a large portion of the seed failed to sprout. Later rains brought up all the replant, and now I am pleased at being able to state that they are promised an excellent crop. The yield would have been better could they have been prevailed upon to thin the corn; but they cannot be made to see the wisdom of this, and were indignant when advised to do it.

Very few have before used the plow in the cultivation, while this season all we had have been constantly in use, and all the time there was a demand for more. The Indians are much encouraged at the prospect, and pleased at what they themselves have accomplished in the planting and the cultivation, and allude to their work seemingly with much pride. It is certainly gratifying to me to know that, besides harvesting a good crop, they will have learned sufficiently to make them in a measure independent of any instructions from the farmers in another year.

The supply of garden seeds I found at the agency was the donation of Mr. Benjamin Coates, a benevolent gentleman of Philadelphia. These were carefully distributed, and at the time seemed to be appreciated, but the dry weather the first of the season caused a failure with most of their gardens; some, however, who had seed to replant with, have good gardens.

I had placed in bed several bushels of sweet potatoes, intending to introduce among the Indians the cultivation and use of this potato, but unfortunately some stray hogs destroyed the bed. I am satisfied this crop might be made to go far toward subsisting these Indians, as in this country they yield abundantly, will keep well, and are easily cultivated. I shall endeavor to grow next season an abundance of these and other plants.

The patches cultivated by the Kiowas have been all in one inclosure, and this situated about 14 miles from their camp, which is a favorite one with them. This is a source of inconvenience to them as well as trouble to the agent, and I hope soon to have it remedied by assisting them in opening farms elsewhere. While doing this, I shall hope to remedy another evil. I take it that no very great improvement can be looked for among any Indians until their custom as to bands is broken up, and certainly not so long as large bodies of them are in one camp. The different bands of Comanches and Apaches have their camps and fields, in most cases, located at suitable distances apart, but the Kiowas are encamped together, and its bad effect is to be seen nearly every day. Less inroads can be made upon their savage rites and customs while so living; they are often in a state of excitement for days at a time by the circulation of some idle story, or maybe they all appear at the agency requesting a council upon a trivial matter, the result of a "talk" at their dance the night before. I was enabled to locate some under the contract for breaking 250 acres of sod this spring, but I regret it did not allow me to settle more of them, or all who wish to be. I annex herewith the report of the farmer.

Having previously received authority from you, I gave, during the month of June, permission to a portion of the Comanche and Apache Indians, a few from each band, to go out to the western part of their reservation to hunt buffalo. The Kiowas desiring while out to engage in their annual medicine dance waited until the close of the school, the last Thursday in June, when they moved out to a point they had selected for the erection of their medicine lodge. General Davidson sent out with them one company of cavalry, under the command of Captain Nolan. The buffalo, after being hunted awhile, moved off beyond their reach, but yet they succeeded in obtaining a very good supply of meat and robes. The robes at this season can only be used for covering their tepees. The Comanches and Apaches returned several weeks since, remaining out but a short while, and the Kiowas are now on their way in.

PROGRESS.

While I am not able to report any very great advancement toward civilization by the Indians during the few months they have been in my charge, I believe I am justified in hoping that another year will show a marked improvement. The desire to enter upon the cultivation of the soil is very general, and many more are inclined to settle off to themselves, and away from the main camps, than was the case several months back. Some of the chiefs have expressed a willingness to give up their chieftainship and settle down with their families on their farms. Moh-a-way, for a long time a prominent Comanche chief, has recently formally abdicated, saying he desires to live

the rest of his life with his family on his farm. I hope and believe that many others will soon follow his example. Another favorable indication is that they show a more correct appreciation of the rights of individual property and a desire to accumulate. They seem lately to be impressed more with the fact that their subsistence must depend upon their own labor, and that the government will not always supply them. I am satisfied that until recently many of them believed they were always to be fed, and with such rations as they could consume, and have not understood that there was any ration prescribed by the authorities at Washington. The disappearance of buffalo has doubtless had its effect in directing their attention to agriculture and the preservation and increase of their herds of cattle.

Those who have houses and lands to cultivate are taking considerable interest in the improvement of their places. Until recently, few have lived in their houses, preferring their tepees, but now, since they have received some beds, chairs, &c., they have moved into them, and seem desirous of adding to their comforts.

They are very anxious to increase their herd of cattle, and some have sold some of their ponies and brought the money to me to be invested in cattle for them. They have many more ponies than they need, and I shall endeavor to have them exchange their surplus for cattle. As the crops in the country are very uncertain on account of the drought and therefore not always to be depended upon as a means of subsistence, it becomes the more important that care should be taken with their cattle. The country is well adapted to raising stock, and could their herds be added to in some way, for instance by devoting a portion of their annuity to the purchase of cattle for two or three years, this, with the natural increase, would in a comparatively short while make them independent of any support of the government.

Many of the Indians seem anxious to have houses to live in, but all are not willing to do what is expected of them toward assisting in building them. All their houses have been constructed entirely by the government, no Indian labor having been required. Now, it seems, they expect the same done, and protest when told that the agent will only furnish a man to instruct and assist, and that they themselves must get out and haul the timber and do the greater part of the work. It will require another outlay of money to make the ten houses built last year habitable for the Indians this winter. The chimney of each of them smokes very much, and as this cannot be otherwise remedied, they must be taken entirely down and built up anew.

I think much good will result from circular order No. 10, in reference to the withholding of sugar, coffee, and tobacco from such Indians as do not work. It will certainly, while teaching them to labor, bring them to a full realization of the fact that the government will no longer help those who are not disposed to help themselves. I have distributed a number of scythes among them and have two mowers cutting hay, which the Indians are gathering and stacking for their own use. During last winter, rails were split to fence the fields plowed this spring, but I find they fall far short of the requisite number, so that the Indians who own these fields and also those who will want plowing next season will be engaged the coming fall and winter splitting rails.

HORSE-THIEVES.

The horse-thieves in this country have been quite active during the past month. Thirty-seven were stolen one night, and five a few weeks before. The thefts were reported to me as soon as discovered, and a detail of soldiers, furnished by General Davidson, was sent in pursuit, but in each case returned without the thief or horses. Many thieves are enabled to get into the reservation at this time every year, as they come ostensibly to work on the contracts to furnish wood and hay at the military post at Fort Sill. They work awhile and get off some night with a lot of ponies. Could I be authorized to hire a man, who knows well the country and understands the business, to lead the detail furnished by the military, something might be done toward stopping this. The Indians are much discouraged by these raids and seem to think too little effort has been made to recover their property.

SCHOOL.

The boarding-school has been under the management of Ezekiel S. Cox the past year, and with good results, as will appear from the annexed report of Mr. Cox. The number of children enrolled, seventy-five, is as many as can be accommodated in the school-building. It is much to be regretted that we cannot offer facilities to all who desire their children taught. I am satisfied there are many more who would gladly avail themselves of the opportunity to enter their children into the school. Certainly it cannot be expected that the present generation can be brought to any very advanced state of civilization, but it is equally certain that, by proper and judicious treatment and education, the next generation can be made whatever we desire to make them. Mr. Cox seems to have been impressed with somewhat the same idea, when, in his report, he expresses the belief that "only young children should be taken into the school, and that, excepting an occasional short visit to their homes, they should remain permanently in the institution." My observation has also led me to believe that "very

young pupils acquire and adopt much more readily all the necessary reforms, especially that of speaking English, in which regard the difference in favor of young pupils is very striking; that they are not so susceptible to the ridicule and intimidation put upon the older scholars by their associates in the camp, and that you cannot take a boy from the camp seventeen or eighteen years of age, who has never experienced any feelings of restraint and discipline, and by a few terms in school have him voluntarily embrace all the habits and language of civilized people." Believing this, I have therefore thought it proper that I should, while the room in the school-building is so limited, receive only the small children into the school the next season. Of course, I would permit any who have been connected with the school to return, should they wish to.

There has been, during the year, a Sabbath school held each Sunday morning, when lessons were taught the children in the catechism, and other appropriate instructions given them. Twice during each Sabbath the employés of the agency have held meetings in the school-room in the forenoon, and again in the evening, one of the employés leading in the exercises. The children were always in attendance upon these meetings, and seemed to take interest in the exercises.

SANITARY.

By the accompanying report of Dr. J. W. Smith, the agency physician, it will be seen that malarial fevers have been prevalent among the Indians of the reservation. At the present time very many are affected in this way, and the reports from some camps show a large proportion of the bands to have been suffering with it. In the selection of camps very little regard has been had to the healthiness of the location, and in the future I shall have better selections made. The terrible effect of syphilis is to be seen very often, and its very general prevalence is certainly a matter of serious concern with those who study the future welfare of these people.

While I do not recommend the building of a house for the purpose, I am satisfied good results would follow if the agency physician had the use of some building suitable for hospital purposes. It occurs to me that much may be effected, through the physician, toward bringing these people to a state of civilization. The breaking up of any one of their savage customs is so much done in that way. I believe their ideas and customs in reference to their medicine-men may be very greatly changed. I have been pleased to see that lately the Indians more frequently call on the agency physician for treatment; yet, it cannot be expected that he will be applied to very generally, unless he should be quite successful in the treatment of the cases that come into his hands. I do not see how this can be looked for while the patient is not only exposed to all the discomforts of the camp, but is without any nursing, except such as he may get from his Indian friends and relations. In many cases, too, the patient may be subjected to annoyance and exposure by the jugglery and manipulations of the medicine-man, which cannot but be injurious.

EMPLOYÉS.

I cannot close without a word in reference to those who have aided me in my efforts to improve the condition of the people who have been placed in my charge. When I entered upon my new duties in April last, I was fortunate in securing the services of some who had been in the employ of my predecessor, and these being conversant with the work of the agency, and besides being faithful and industrious, have greatly assisted me in my new undertaking. Those of my force who entered with me upon the new duties, having become familiar with the work, are doing good service. I feel in the future I will be well supported in my efforts.

This report, with the accompanying statistics, though I am sorry to say do not show the progress that would be desirable, are as close an approximation and as near the truth as I am able to make them.

I have the honor to be, very respectfully, your obedient servant,

P. B. HUNT,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

PAWNEE AGENCY, INDIAN TERRITORY,
August 12, 1878.

SIR: In compliance with instructions of circular-letter of July 1, 1878, I respectfully submit the following report of the condition of this agency, and the Indians under my charge. Within the limited time that I have had charge, since June 13 of this year, it will be impossible for me to render a complete statement of the affairs of the Pawnees.

Since the last annual report was written there has been a decided improvement in the condition of the tribe. All of the bands have removed from the near vicinity of

the agency to their respective breakings, which were cross-plowed for them early in the spring, and were harrowed and put in condition for planting by different members of bands under the supervision of the agency farmer. About 600 acres were planted in this way, which, with the fields already under cultivation, amounts to about 1,000 acres. The greater part of this area was planted with corn that has generally yielded well, though the heavy rain-fall during the growing season destroyed some of the plantings entirely, and dwarfed some others. A number of Indians gave some attention to the cultivation of garden-crops, and the beds of onions, beets, to matoes, and cabbage, testify that their efforts in this direction have been quite encouraging.

The *Pawnees* appear to understand the necessity of engaging in civilized pursuits, and their industry in planting and cultivating the crops, building fences, and cutting and hauling logs for the erection of better dwellings, is very praiseworthy. About 700 or 800 rods of fence have been built, which of itself requires no small amount of labor. The Indians went into the woods, cut the trees, split the rails, and afterwards hauled and built them into the fence.

Twelve log and two frame houses have been completed by the agency carpenter, with the aid of the apprentices, engineer, and the Indians, and there are twice as many more partly constructed. The houses would have been put up more rapidly, but only one carpenter being employed, and the Indians busy a greater part of the time with other work, progress has necessarily been slow. After the grist-mill has been completed, there will be more time to devote to house-building and agency improvements and repairs, of which there is great need. Two of the bands live in compact villages, one of earth, and the other of cloth lodges. The other two bands are either living in their new houses, built on the allotments they have selected, or in earth or cloth lodges, near where they expect to open farms and build houses.

The manual-labor school building, which was erected under contract, and completed early in May, is a very complete, substantial, and well arranged structure, capable of accommodating one hundred pupils. The *Pawnees* are much interested in having their children attend school, and although many of the children live several miles distant from the building occupied by the two day-schools, the attendance during the year reaches a very fair average. A request has been made by the chiefs and headmen for another day-school, and that the manual-labor school be opened as soon as possible.

Six Indians are employed as apprentices and teamsters, and render efficient aid to the carpenter, blacksmith, and farmer; in fact there are many more applicants for these positions, and for general work, than can be accommodated. We hope by another year, however, to make arrangements by which every one who is desirous of opening a farm can have the means of so doing in his possession.

The wagons and implements issued this year have been of great service to them, but many who wished to do more have felt the need of a more complete outfit. The Indians have broken 75 acres for themselves, mostly in 5 and 10 acre pieces. The work-cattle, which were purchased for them in April, have enabled them to do this, with some instruction from the agency farmer; and when our hay is gathered and the corn crop secured, they will be able to accomplish much more in this line, and will plant a much wider acreage next year than this, if properly encouraged. The *Pawnees* gave up the buffalo hunt this summer without much trouble, and though they occasionally refer to the hunt the coming winter, I believe that by firm but gentle means they can be prevailed upon to abandon it and fence their fields instead, thus preparing for better and larger crops another year. The cows and calves which were issued to them in the spring have received good care, and the Indians fully appreciate them, and nearly all express a desire to have cattle and hogs of their own.

It is hoped nothing will occur to unsettle the present good feeling which pervades the tribe, and the general desire to live in a self-supporting and civilized manner. Discouragements of course we meet on every hand, but if those who are sent to labor among these people are of the right kind, and who can, in their work, forget self in a measure, and urge them on to a higher plane, these discouragements sink into insignificance. We undoubtedly have the encouragement of knowing that the Indians are awakening to the importance of becoming self-supporting, and are desirous of attaining that basis while they have the aid of the government. Any change of policy or management which will retard the movement, just as its force is being felt, will be most prejudicial to the service, for these people, who are wedded to their traditions, naturally find it very difficult to ingraft new ideas and accept new laws and regulations. The *Pawnees* are a quiet, tractable people, who can be governed by peaceable means. All they desire is that whatever concerns them should be fairly presented for their consideration, which is undoubtedly their right as managers of their own affairs.

Indian customs prevail to a greater or less extent, as they see the necessity of abandoning them; but I have observed that, as soon as the house is finished, a request for table, chairs, and bedstead follows. If the owner of the house has several ponies, he invariably wishes to exchange one for a cooking-stove and other culinary implements. A number of those who occupy the houses near the agency, not needed for employés, have exchanged ponies for hogs, and others throughout the tribe are only awaiting an opportunity to do so.

In conclusion, I would state that for the adult members of the tribe encouragement to labor in agricultural pursuits, care of stock, and a better and more healthful mode of living for the children, the establishment of schools, both manual-labor and day, so that all those of school age can attend; then this question of civilization, which is the work of an age, can approach solution in a generation.

Very respectfully,

SAML. S. ELY,
Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

PONCA INDIAN AGENCY, INDIAN TERRITORY,
August 31, 1878.

SIR: I have the honor to submit my annual report of the condition of matters at this agency, and of the progress made toward the settlement of the Ponca Indians on their new reservation in the Indian Territory. As I have been but two months in charge of the agency, and as during the most of that time, as for a year previous, the Indians have been in transit (having been but temporarily located on the Quapaw Reservation), my report will necessarily be brief.

I took charge of the Ponca Agency on the 3d day of July, A.D. 1878, relieving A. G. Boone. It was with much diffidence and some reluctance that I entered upon the discharge of my duties as agent for the Poncas. As my predecessor was a gentleman of long experience in the Indian service, and as many men of experience had preceded him—none remaining with the tribe but a short time—the Poncas had come to be regarded as a tribe difficult to govern. Therefore it was with but little confidence in my own ability to succeed that I commenced my duties.

The order to me from the department to take charge of the agency also directed me to immediately move the agency and the Indians to the new location selected for them, west of the Arkansas River. I immediately commenced active preparations for the removal. I had a large amount of freight, consisting of supplies, agricultural implements, camp equipage, &c., to transport, and was also encumbered with a number of sick Indians and many that were old and decrepit. I left the old location south of Baxter Springs, Kansas, with the freight, agency employes, and Indians on the 21st day of July, 1878, and arrived at this, the new Ponca Reservation, on the 28th day of July, 1878, having been eight days on the road. The distance traveled was, as the roads run, about 185 miles. The heat during all the time we were en route was intense, the thermometer ranging from 95° to 100° every day. The removal was accomplished with no loss of government property but one horse, which died within a short distance from Arkansas City from the effects of fatigue and heat, though all the stock, as well as every person who made the trip, was very much jaded and exhausted when we arrived here. I think, considering the severity of the weather, we were very fortunate in not suffering greater loss.

The agency is located on the Salt Fork River, in the large bend formed by that river, and about two miles west of its confluence with the Arkansas River. The agency was located by Indian Inspector General John McNeil, and so well located in point of health, beauty, and convenience to wood and water as to reflect great credit on that distinguished officer's good taste and judgment. The soil is of a sandy nature, but its appearance and the heavy growth of grass upon it indicates that when cultivated it will be very productive. The grass is mostly sage, interspersed with buffalo-grass, and cattle herded up on it are said to do well all winter without being fed any other food. We have a bountiful supply of water, cool and sweet, furnished by the many springs which run out along the river bluffs. The timber on the reservation is chiefly cottonwood, oak, walnut, and pecan. There is an abundance of it for fuel, but trees suitable for lumber or rail timber are not so plentiful, though there is sufficient for all practical purposes for many years to come, if too lavish a use is not made of it.

There is but one building on the reservation—a commissary building, 24 by 70 feet, containing two small office rooms, which was built by the government during the past summer. We are sadly in need of residences for the agent and agency employes. I sincerely hope they will soon be provided for us, as cold weather is rapidly approaching, and the idea of having to winter in tents is not a very pleasant one to contemplate.

The Indians are all living in tents, congregated in one large village. This I am endeavoring to change. I have been urging them to break up into bands at least, if not in families, and select the land they wish to make their homes upon and move out upon it, away from the village. My efforts in this direction have met with some success. The half-breed band have promised me to move very soon to the mouth of the Chikaskie, about 8 miles from the agency, and others, I think, are considering the matter very favorably. In my opinion the tribal village is one great source of trouble

at an agency. It is there that the mischief-makers sow the seeds of discontent, which cause an agent much trouble to eradicate.

No attempt has been made at raising a crop of any kind this year, because of the fact that we did not arrive here until it was too late in the season to do so. Therefore the Indians will have to depend entirely upon the government for subsistence; but they express a desire to work and help support themselves, and I expect at the end of another year to be able to make a favorable report of their ability and inclination to do so.

The season thus far since our arrival here has been a very sickly one. The Poncas have suffered severely from chills and fevers and intermittent fevers. Coming from a northern latitude, where such diseases were unknown, with their systems unacclimated, the malaria has been peculiarly fatal to them, and many deaths have resulted. The Poncas now number 639 people, which by comparison with the annual report of 1877 from this agency shows a decrease of 45.

Their sufferings have greatly discouraged and made them dissatisfied with this location, and they express a strong desire to go back to their old reservation in Dakota. However, I am of the opinion that if the government will fully and promptly fulfill all the promises made to them to induce them to leave Dakota and take up their home on this reservation they will cheerfully accept the situation and settle down with a determination to labor and better their condition. At present there is a restless, discontented feeling pervading the whole tribe. They seem to have lost faith in the promises of the government, and often say the "Great Father" has forgotten them; by the time he again remembers them none will be left to receive what he has promised them. The chiefs are very anxious to visit Washington and have a talk with the President for the purpose of having the size and boundaries of their reservation determined and definitely settled by treaty stipulations. I would earnestly recommend that they be allowed to do so some time during the coming winter. I think it would contribute greatly toward a restoration of good feeling, and to remove the spirit of discontent and dissatisfaction which now pervades their minds.

The Poncas are good Indians. In mental endowment, moral character, physical strength, and cleanliness of person they are superior to any tribe I have ever met. I beg for them the prompt and generous consideration of the government, whose fast and warm friends they have ever been.

Very respectfully, your obedient servant,

WM. H. WHITEMAN,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

OFFICE OF INDIAN AFFAIRS,
Quapaw Agency, Indian Territory, August 30, 1878.

SIR: In compliance with instructions of July 1, I submit herewith my seventh annual report of the condition of this agency.

This agency is situated in the northeast corner of the Indian Territory, and contains 202,298 acres, one-half of which is rich, arable land, and the remainder is unsurpassed for grazing purposes. Probably one-third is timbered land, covered with a luxuriant growth of nutritious native grasses. The timber, as a rule, is not valuable, except for rails and house-logs, very little of it being suitable for working into lumber. The agency is well watered by the Neosho and Grand Rivers on the western boundary, Spring River through the center of the northern part, and Cowskin through the southern portion, as well as by numerous creeks and branches supplied by living springs of clear, cold water, which flow through almost every section. The tillable land, except the alluvial soils along the margins of the streams, is generally high, rolling prairie, with a rich, black, loamy soil. The timbered land, except on creek and river bottoms, is high, broken, and rocky, and is supposed to contain minerals, as the formation is volcanic, and is identical with the mineral-bearing lands of Kansas, Missouri, and Arkansas.

The tribes constituting the agency are the Quapaws, Confederated Peorias and Miamis, Ottawas, Eastern Shawnees, Wyandotts, Senecas, Modocs, and, since the 21st of July last, Joseph's band of Nez Percés. In addition to these there are a number of Black Bob Shawnees and citizen Pottawatomies who properly belong elsewhere, but are temporarily residing here.

The Quapaws number about 235, and hold a tract of 56,685 acres in the northeast corner of the agency. A large majority of the tribe have long desired to remove to the Osage country and become incorporated with that tribe. This desire, together with the demoralization incident to their proximity to the vicious, intermeddling whites usually found on our border, has materially retarded their progress. The principal chief and nearly two-thirds of his people are with the Osages. Those remaining

on their reservation have not sufficient energy to make very much improvement in agricultural pursuits, though they are all cultivating more or less land. All of their children of suitable age, 26 in number, have been in school during the year, nearly all regularly. Properly educated and cared for a few years longer, these children will make intelligent and respectable citizens.

The *Confederated Peorias and Miamis* number 197 and occupy a fertile tract containing 50,301 acres. These people are more than ordinarily energetic and enterprising. They have good houses and barns and quite a number of large farms well stocked with horses, cattle, and hogs. Their children have generally attended school with regularity. The enrollment at the Peoria school was 51 and at the Miami 31.

The *Ottawas of Blanchard's Fork and Roche de Bœuf* number about 135, and have a reservation of 14,860 acres of very fine land. They are farmers, and nearly every head of a family has an improvement of his own, varying in size from a few acres to 160. There has been an aggregate attendance of 48 scholars at their school during the year. This school, under the supervision of Frank King, a native worker, a member of the tribe, has been a marked success.

The *Eastern Shawnees*, numbering 86, have 13,088 acres of land. They have some very fine improvements, which they enlarge and extend each year. The progress made by some of their leading men is very commendable. Twenty-four children belonging to this tribe and the Black Bobs among them, have attended school this year.

The *Wyandotts* number 260, and have a reservation of 21,706 acres. As a rule, they are energetic and enterprising. All are engaged in agricultural pursuits, some having fine large farms with most of the conveniences of civilized life surrounding them. They have a considerable amount of stock, some of good blood, and many of them are interested in improving its quality. They have had 50 of their children in school during the year.

The *Senecas*, numbering 242, occupy a reservation of 51,958 acres. They are rapidly acquiring habits of industry and economy, and they will soon compare favorably with the surrounding whites. They have good improvements, which they enlarge from year to year. Their hostility to education and civilization has almost ceased, as is shown by the unusual number who have attended school—44 children, all except one who were of suitable age—as well as by their slowly, but surely, adopting the ways of civilization and giving up their old Indian customs. A bright future is certainly in store for them.

The *Modocs* occupy 4,000 acres of farming and grazing lands. They number 103, are actively energetic in farming, and are quiet and easily managed. All their children of school age, 27 in number, have been in school during the year. They are temperate and industrious; have fine crops, and are progressing rapidly in civilized pursuits.

The stray *Black Bobs*, *Pottawatomies*, &c., who are living here, number about 100. They are not, as a rule, progressive people. A number of them are lazy, thriftless, and intemperate. A majority of the cases of drunkenness that have occurred within the limits of this agency during the past year have been among this class or through their influence. There are, however, some honorable exceptions, a few being industrious and well behaved.

Taking all the tribes together, their condition is very encouraging. They have worked well during the year, and have made fair additions to their improvements. The yield of wheat was unusually light on account of the excessive rains during the time it was filling and maturing. The quality is very good, however. Exclusive of the government farm on the Quapaw Reservation, there are 7,127 acres in cultivation, and 9,541 acres under fence. The Indians have broken 1,276 acres of new land, have made rails and put up 7,196 rods of new fence, and have built 41 new houses during the year. They have 450 log, 71 frame, and one brick house. They own 709 horses and mules, 1,697 head of cattle, 5,297 hogs, and have 9,036 fruit-trees.

The educational interests have been in a prosperous condition during the year; the boarding-schools and the Confederated Peoria day-school have been in operation twelve months each. The Miami school was in operation nine months only, on account of sickness among the children. The total enrollment at the schools is as follows:

	Males.	Females.
Seneca, Shawnee, and Wyandott boarding-school.....	59	61
Quapaw and Modoc boarding-school.....	34	28
Ottawa board ng-school.....	26	22
Peoria day-school.....	26	25
Miami day-school.....	16	15
Total.....	161	151

The attendance has been unusually regular and the progress correspondingly good. Orthography, reading, writing, arithmetic written and mental, algebra, English grammar, physiology, and history, have been taught, and the children have daily Scripture

lessons. In addition to this, the industrial arts are taught in all the boarding-schools. The boys out of school-hours are employed in caring for stock, milking, and ordinary farm and garden work, and the girls in attending to household duties, kitchen-work, cooking, sewing, cutting garments, &c. All take kindly to such work, and their parents, with scarcely an exception, are pleased with their employment and instruction. The Indians generally have been well pleased with the manner in which the schools have been conducted, and have encouraged the teachers and care-takers to the extent of their ability. About the only exception to this commendable course of conduct has been among the Ottawas; a few of the men of this tribe became offended at the superintendent at their school (a member of the tribe) during the winter, and showed a very bad spirit, and made considerable trouble in the school, though, I am happy to say, they had not sufficient influence with the tribe to decrease the attendance or retard the progress of the pupils.

The prospects for schools were never better than they are for the ensuing year. The children are having a vacation of two months, and look forward to the reopening of school with bright anticipations. It is the expectation to have the Seneca, Shawnee, and Wyandott, and Quapaw and Modoc, boarding-schools, and the Peoria and Miami day-schools reopened on the first proximo. The Quapaw and Modoc school will be under charge of A. C. and E. H. Tuttle; the Seneca, &c., school under the care of C. W. Kirk and wife; the Peoria school under charge of G. M. Lindley, and the Miami school under charge of M. H. Stoner, for the ensuing year. With this able corps of teachers and superintendents I hope for great success.

On the 14th of July I was instructed to go to Fort Leavenworth and receive the *Nez Percé* prisoners there. On the 15th, in company with Inspector McNeil, I proceeded to that post and made arrangements for the transfer of the Indians, and their transportation to this place. On the 21st we placed them on the cars and brought them to Baxter Springs, Kansas, reaching that point late in the evening. On the morning of the 22d we moved them by wagon to this point and encamped them on the Modoc Reservation. On the 14th of August, in company with General Clinton B. Fisk, and Hon. William Stickney, I met the chiefs and headmen of the Confederated Peoria and Miami Indians in council, and purchased of them about 7,000 acres of their reserve for a future home for Joseph and his band. The tract thus secured is admirably adapted for the purpose, being a combination of good farming and grazing land, embracing both timber and prairie, and supplied with good water in abundance.

Joseph expresses himself as very much opposed to making this country his future home, dwelling particularly on what he claims were the terms of surrender agreed upon between himself and General Miles at Bear Paw Mountain, according to which he argues he was to be returned to his old home. With this object in view he has persistently refused to commit himself to the acceptance of the purchase above referred to. I believe, however, that with patience and care I shall succeed in getting him and his band moved on to the land and permanently located within a short time. I have engaged the services of a competent carpenter, an Indian, and with his assistance I shall endeavor to get them to work at building houses as soon as the weather and their health will admit of it. I also wish to have a day-school opened on their reservation as soon as possible, and to get their children into school as fast as it can be done.

Owing to the location of their camp immediately on the bank of the Missouri River, at Fort Leavenworth, and the excessively hot summer, they were filled with malarial poison, and, as a consequence, nearly every one in the camp has been sick since their arrival here, and several deaths have occurred. This has had a very discouraging effect on the Indians, as they cannot see that their impaired health is not attributable to this country, but that they brought their diseases with them.

Our supply of medicines for this year has not yet been received, and we have found it very difficult to procure suitable remedies, and when we add to this the reluctance with which many of them take the "white man's medicine," some idea of the difficulties attending the checking of their diseases may be formed; but I am now glad to be able to say that their sickness is abating, and I believe the worst is over. They now number 86 men, 168 women, and 137 children.

The religious interest among the Indians of this agency is an encouraging feature of the work. While no efforts have been made to make proselytes to any particular sect or denomination, it has been the constant effort and aim to build up and establish them in the religion of our Lord and Saviour Jesus Christ and to make them a moral, Christian people. The success which has attended this method convinces me that it is the true one. When an Indian acquires and becomes established in Christian principles, then he becomes competent to choose the particular denomination best suited to his wants and nature. Sabbath schools have been kept up regularly at each of the schools and have been well attended, not only by the children, but by the adults, some of whom have taken an active part in the exercises and acted as teachers. These schools do much to inculcate correct religious principles among the people, and are doing a great deal of good.

The temperance cause is steadily gaining ground in this agency. During the winter a great deal of work was done in this field of labor and large numbers signed the pledge, the greater portion of whom have held firmly to it.

In conclusion, I would respectfully submit the following recommendations, all of which are especially applicable to the Indians of this agency:

1. That the lands should be allotted to the Indians in severalty, and certificates issued to the heads of families. This will promote a better and more permanent class of improvements, by giving the people a feeling of security in the ownership of their homes. Land should remain, as now, inalienable.

2. Tribal relations should be done away with as far as practicable and the individuals constituting the tribe thrown upon their own responsibility, and thus taught to depend upon themselves and not to look to chiefs and headmen to care for them.

3. United States laws should be made applicable to crimes committed by Indians against the persons or property of other Indians; and Indian agents should be *ex officio* United States commissioners, and in addition should have jurisdiction over and authority to punish minor offenses.

Very respectfully,

H. W. JONES,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

OFFICE OF UNITED STATES INDIAN AGENT,
Sac and Fox Agency, Indian Territory, August 24, 1878.

In compliance with instructions of circular-letter dated July 1, 1878, I have the honor of submitting my third annual report of the affairs pertaining to this agency, which embraces the Sac and Fox of the Mississippi, the Absentee Shawnees, Mexican Kickapoos, and citizen Pottawatomies, aggregating 1,619 Indians, not including those of the Sac and Fox in Kansas, numbering about 75.

THE SAC AND FOX

who permanently reside on the reservation now number 433, all of whom, with a few exceptions, are engaged more or less in agricultural pursuits and stock-raising, corn being the principal cereal product, of which many will have a surplus the present season. The steady advance of these Indians in civilization is indicated by their increased demand for houses and agricultural implements, and the additional area of cultivated land brought into use. Many of them are putting up hay for feeding to their stock during the winter, and they are beginning to realize the necessity as well as the advantage of a change in their mode of living; and since my acquaintance with them they have evinced a generous desire to comply with instructions from the Indian Department. If the facilities and encouragement were extended of supplying them with proper agricultural tools and implements that their ample annuity affords, their advancement would be perceptibly accelerated and their means for support largely increased.

There still remains a portion of this tribe in Iowa, who have been so far recognized as a separate tribe by Congress and the Indian Bureau as to provide them with an agent and divide the Sac and Fox funds with them, which I believe to be of doubtful propriety, as they have been encouraged in the act of refusing to comply with treaty stipulations by not uniting with the tribe to occupy lands set apart for them; and also detracting from their advancement in civilization by fostering their unsettled, nomadic disposition; and as they are blood relatives of many of the tribe, they necessarily keep up their social relationship by protracted visits from year to year. The small tract of land occupied by them not being sufficient to afford them subsistence, they resort to a system of begging through the country, annoying the citizens, and affording only temporary relief to themselves.

The remnant of this tribe still in Kansas, known as the Mo-ko-ho-ko band, have, by the favor shown those in Iowa, been induced to believe that if they would persist in their refusal to unite with the tribe, they would eventually be recognized as being entitled to a portion of the Sac and Fox annuity fund, and get it set apart for them, as those in Iowa had done before. And while the tribe desired a liberal policy extended to all the absentees, to induce them to return and unite with their people, they provided by treaty that no part of their funds, due or to become due, should be paid to any bands or parts of bands who did not permanently reside on the reservation, except those in Iowa, at the time of making said treaty, who were not required to permanently reside with the tribe in the Indian Territory, but are required to go there and receive their money, as all the money was to be paid to them at the agency on the reservation (October 21, treaty of 1868). And by thus being required to come to the

agency from time to time, to receive their annuity, these roving bands would eventually be induced to remain and unite with the tribe.

The Sac and Fox Indians have done much better than last year in keeping their children in school, and many of the pupils that have never attended school before have made commendable progress in acquiring a knowledge of the English language and letters. All the pupils that are large enough are instructed in and required to participate in all the domestic industries pertaining to the institution.

There have been three good log houses built, and about 800 rods of good fence made during the year by these Indians.

THE ABSENTEE SHAWNEES,

now numbering 661, separated about thirty-five years ago from the main tribe, then located in Kansas, and settled in the Indian Territory, principally within the limits of what is now the 30-mile-square tract of land set apart for the Pottawatomies, by treaty of 1867, where they have been engaged in farming and stock-raising since.

They are self-supporting, receiving no government aid except for the support of one boarding-school, which has been filled to its utmost capacity during the past year, and the accommodations are not near adequate to the demand, as the Shawnee Indians have about 120 children of suitable school age, and they are anxious to have their children educated. Many of them are still in very limited pecuniary circumstances, having lost all their property during the war, and for which they have never received any remuneration. They have built 25 log houses and made 1,500 rods of fence, splitting the rails for the same. They have grown good crops the present season of all the kinds they usually plant.

THE MEXICAN KICKAPCOS,

numbering 375, have been making commendable progress. During the past year they have cultivated 440 acres of land, being an increase in area of 117 acres over last year; this has produced about 9,000 bushels of corn, besides their vegetables, which, with the small amount of rations issued and a limited supply of wild game, has enabled them to live very comfortably. They have made rails for and have put up about 1,200 rods of fencing. The farmer has cut about 50 tons of hay, which they have raked, hauled, and stacked for themselves. Five log houses have been built, the Indians doing the entire work. No supplies have been issued to them since June 30, as the supplies for the present fiscal year have not up to this time been received.

Early in the spring, about 40 of the Kansas Kickapoos joined them here. They came with the express purpose of making this their home, and were enrolled. Ke-wah-quark, one of the Kansas Kickapoos, a man of advanced and practical ideas, is now their recognized chief, vice Thah-pe-que, who died in October, 1877.

Under the circumstances their advancement in civilization is necessarily slow, but I have every reason to believe that their prejudice to education is giving way to a desire for schools, and that had they the opportunity many of their children would be placed in school, as the property they are accumulating, and farms and homes they are making, will have a tendency to settle them, so that the efforts for civilization will operate more potently than heretofore. It would be an advantage to these Indians if the funds now used in the purchase of provisions to feed them were expended in purchasing agricultural implements and stock for their use.

THE CITIZEN POTTAWATOMIES,

numbering about 250 persons, have grown good crops the past season, and, although they are in limited circumstances, will have an ample supply of the necessary articles of food for their subsistence the present year, which has not been the case altogether heretofore. They have had two day-schools taught during the past year; one, a small school under the Catholic auspices, during a greater portion of the year; another, a neighborhood school for four months, during the winter and spring, with an attendance of about 20 children. These privileges have been fully appreciated by these people, who are sufficiently intelligent and capable of realizing the advantage of an English education.

Owing to the isolated situation of the citizen Pottawatomies from the agency, white intruders and outlaws feel more security and take more liberty than if they were in close proximity with authority, where cognizance would be taken without delay of crimes and depredations committed. And probably from this reason mainly, three murders have been committed among these people during the past year; two Indians killed by white men in December last, and one killed by an Indian about the first of the present month, the perpetrators of the crimes fleeing the country immediately, thereby precluding any possibility of apprehension at present. Such facts as these are cogent arguments in favor of establishing United States courts in the Territory for the more efficient promotion of peace and safety to the people who reside here.

In viewing this field of the Indian work, in which each generation of mankind can see but a few links of this revolving chain of civilization pass before them, the progress naturally seems slow; but contrasting the present condition and circumstances of the

Indians with what they were when I took charge of the agency, there are many things to encourage and stimulate those who have had the cause of the civilization of the Indian at heart; and as they are slow to take hold of any new proposition or change suggested to them, we find them slow to adopt any new measures presented by the Indian Department; hence many of them are just now beginning to appreciate the good resulting to them by the increased efforts of the Indian Bureau for the past few years to induce them to become civilized and self-supporting, as the comforts and convenience of houses, the profits from their stock, and the ample supply of the various products from their increased efforts at farming are just now developing into something tangible to them.

The general health of the tribes throughout this agency has been good during the past year; but it is a source of regret that at the approach of the sickly season our supply of necessary and important medicines is exhausted before those for the present fiscal year have arrived.

As suggested in my last annual report, the necessity of a more secure place for storing supplies is almost absolute, as also extensive repairs to the mill.

The statistical reports of this agency are herewith inclosed.

LEVI WOODARD,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

WICHITA AGENCY, IND. TER.,
August 31, 1878.

SIR: In compliance with your circular of July 1, 1878, I submit this my third annual report.

In order to give you a clear view of the advancement made under the present policy, I will state that at its commencement, nine years ago, the Indians of this agency were all living in villages in their primitive style. Over three-fourths of them are now living in comfortable log cabins, making farms, cultivating the land, raising cattle and hogs, and have raised during the past year over 50,000 bushels of corn, 3,000 bushels oats, and 400 bushels wheat. They have also over 3,000 head of cattle among them, and nearly that number of hogs.

There were 117 children in attendance at school, average daily attendance 88, until the school-house was burned. After the fire a school was organized in the agent's house, with an average attendance of 44. The progress of the children was satisfactory, and their parents take as much pride and satisfaction in their advancement as whites do in the mental development of their children. The school is the most potent lever for controlling the Indians known. They will not make war on the whites after having once placed their children under their care; it also advances their parents in their manner of living, begets in them a desire to live more like white people.

The Baptists have had a missionary here during the past year, assisted part of the time by a Seminole Indian, and have organized a church of over 30 Indian members, a majority of them being Wichitas, who were among the wildest of their tribe a few years ago. There are many others who take a deep interest in religious matters, and their services are attended on the Sabbath by from one to three hundred persons. There is a great interest taken among these same Indians in regard to cleanliness, industry, &c., which improves them very much, and tends to advance them in civilization rapidly, and develops the fact that one energetic missionary is of more value to the people than a regiment of soldiers.

These people should be furnished with the implements to work with, and instruction to use them, and in a short time they will be able to take care of themselves.

Respectfully submitted.

Your obedient servant,

A. C. WILLIAMS,
United States Agent for Wichitas.

The COMMISSIONER OF INDIAN AFFAIRS.

AGENCY OF THE SAC AND FOX INDIANS IN IOWA,
Toledo, August 17, 1878.

SIR: In pursuance to instructions received from the Office of Indian Affairs, I have the honor to submit my annual report of the *Sac and Fox* Indians in Iowa.

The reservation belonging to this tribe is located in Tama County, on the line of the Chicago and Northwestern Railroad, and intersected by the Iowa River. They have 692 acres of land, which they have purchased with their annuity, and is held in trust

for their use and benefit, and upon which they pay taxes. They have, by estimate, about 150 acres of land under plow, and 60 acres in tame grass, the balance wild and wood land. The whole tract is under fence, most of the fencing being of good and substantial make. The reservation is in close proximity to several towns, and approachable by established highways from all directions. Their chief crop is corn, while they raise potatoes, beans, onions, tobacco, squashes, and other vegetables in quantities to meet their wants. Their crop is hardly an average crop this year, owing to overflow and the wet season.

The tribe numbers 345, there being 164 males and 181 females. There have been 7 births and 3 deaths during the year. They are in a healthy condition, and a majority of the deaths have been among the old people. Their personal property is estimated at \$15,000, consisting chiefly of ponies, which is their idea of wealth. They have carefully pastured them this year, and have done all they could to prevent trespass upon the land adjoining them. Situated as they are, in a flourishing farming community, they have become well informed regarding their relations to the whites, and have been very peaceable and quiet. No crimes have been committed, while they have advanced in the knowledge and disposition to labor, and have made many friends. Nearly all of the able-bodied men have been employed during harvest, receiving good wages, and make good laborers. Their lands being held in common, they cannot farm on a very large scale. In addition to what they raise on the reservation, they hunt and trap, and depend upon their annuity and sale of stock to complete a full support. Quite a number have adopted civilized dress, and several have purchased land outside of the reservation and are conforming to the habits of the whites.

They have made no regular attendance at school, but the school-house is kept open and every opportunity improved to teach them and remove the prejudice existing by reason of their religious belief against education. Books have been distributed among them, and in this irregular manner some of them have learned to read and write. The farmer resides in the second story of the school-building, and, besides attending to his duties as farmer, does all he can to get them interested in education, carefully attending to the sick and infirm, and has been kind and attentive to them. The prejudice against the school is caused by the chief and head men, who are opposed to it, and the young men are governed by their disapproval under their tribal relations.

The chief exerts a wonderful influence over the tribe by appealing to their superstitions and religious belief, and is very jealous of his power, and desires that his tribe be kept together under tribal relations, which prevents the desired progress toward civilization. Yet, notwithstanding this, by their daily intercourse with the whites all around them they have learned a great many ideas and truths of material advantage to them. They have advanced in learning the English language, the requirements of the law regarding payment of debts, crimes, trespass, and petty misdemeanors, and accept as true the manner in which the law in these cases is applied to the whites. As a tribe, they are honest and law-abiding, and merit considerable praise. Considering their location, it has been a subject of remark that no crimes have been committed by them against the whites or among themselves for the last three years.

They possess a strong desire to acquire more land and will purchase more if not removed, as it renders them more permanent and independent in providing for their wants, and serves to keep them together. They have strong local attachments for their present home and desire to remain, as many associations are connected with their residence here. The question of their removal has been presented to them and they firmly refuse to consider it, and say that they will not be removed except by force.

The agitation of this question has had its bearings upon their conduct regarding their enrollment and acceptance of their annuity. While they disclaim any desire to be stubborn or to show disrespect to the government by their recent refusal to sign the new rolls adopted by the bureau, yet they are suspicious that something is back which they cannot see and which they may not approve, and they entertain the idea that the question of their removal is one of these things connected with the new rolls. The moment they are convinced that the requirements of the bureau is for their good they will enroll, and now are willing to accept their pay under the old form of rolls. Again, their suspicions have been strengthened by the report that their lands would be divided if they signed the new rolls. This has been done by mercenary individuals, who care nothing for their interests. The non-acceptance of their annuity has been the cause of their performing more labor this year than any previous year, and has been of no detriment to them except the dissatisfaction among the whites occasioned by not paying their debts, as they owe largely for the necessities of life, and those trusting them desire their pay. They still have the matter under consideration, and I have from time to time called to my assistance a number of prominent citizens who are friendly to them to explain the policy of the bureau, and to try, if possible, to disarm their suspicions; and they may yet comply.

The leading men of this tribe are full Indians in the true sense of the word, and hold to their traditions, customs, and beliefs with wonderful tenacity. They meet any

change attempted in the administration of their affairs with suspicion, especially where they think it interferes with their religion. The younger members of the tribe are more susceptible of improvement, and are only held by the power of their tribal relations through their chief and headmen. Having no appropriations at my command, and the Indians having set apart nothing for the current year, what has been done has come from their own efforts in the way of improvements and industry, through earnest persuasion and the assistance of the farmer, who has been diligent and faithful to his trust.

Correspondence has been held, and the attention of churches and missionaries has been called to the fact that there is a wide field for labor among these Indians, and that all possible support and protection will be given to any representative who may come among them and work. But as yet none have accepted the trust, it always ending in refusal when it is ascertained that no appropriation is made for the labor performed. Considering that no compulsory means can be used to enforce any regulation intended for their government, but that the power of persuasion only can be used, with a careful study of their disposition and beliefs, the circumstances surrounding them, combined with their former relations to the government, it is hardly a question of any doubt but that they have progressed as favorably as could be expected.

I have the honor to be, your obedient servant,

THOMAS S. FREE,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

OFFICE OF AGENCY INDIANS IN KANSAS,
September 1, 1878.

SIR: In accordance with instructions from the Office of Indian Affairs, under date of July 1, 1878, I herewith submit my sixth annual report of the condition of the Indian tribes in this agency.

The *Prairie Band of Pottawatomies* number 427 persons present on their reserve, 280 in Wisconsin, and 17 in the Indian Territory. The *Kickapoo* Indians number 228 persons present on their reserve and 22 in the Indian Territory. The *Chippewa and Christian* Indians number 59 souls, all residing on their reserve, making 714 persons present in the agency and 319 absent, aggregating 1,033 persons.

The Pottawatomie reserve, located in Jackson County, Kansas, contains 77,357 acres of land; the Kickapoo reserve, lying in Brown County, Kansas, embraces 20,273 acres, and the reserve of the Chippewa and Christian Indians, located near Ottawa, in Franklin County, Kansas, contains 4,395 acres, making a total of 102,025 acres. These tribes have about \$875,000 placed to their credit on the books of the Interior Department, the interest of which is paid as annuity, for support of schools, maintenance of shops, purchase of agricultural implements, lumber, &c.

The Chippewa and Christian Indians, without exception, live in comfortable dwelling-houses, and have good outbuildings, farms, and orchards. They all speak the English language, and I think might safely be made citizens of the United States, provided their land should remain inalienable for a period of years.

The Kickapoo Indians have made much more progress during the past than in preceding years, owing in part to the abatement of contentions among them, and to the fact that they have become fully impressed with the necessity of greater energy in prosecuting their agricultural pursuits, that they may be supplied with the necessities of life; their annuity, about \$26 per annum *per capita*, furnishing but a small proportion of necessary subsistence. With few exceptions they have erected and live in comfortable log-dwellings; many of them are really prosperous farmers, and their example is of great benefit to those who, from a lack of industry and knowledge or from a dislike of civilization, are indisposed to personal exertion in legitimate pursuits.

There is a strong religious sentiment existing in this tribe that gains force each year; though this sentiment does not partake entirely of consistent religious ideas, yet it is gradually guiding them to a knowledge of revealed religion, and will eventually lead to the extinguishment of superstitious ideas and dangerous traditions.

The industrial boarding-school for these Indians has been moderately well attended during the year; the buildings are supplied with the necessary furniture, bed-clothing, cooking utensils, &c., for boarding and lodging about 35 pupils. A farm of 35 acres in area is attached to the school, stocked with cattle, mules, hogs, and poultry.

The wagon and blacksmith shop erected for these Indians a year since has been of great benefit in keeping them away from the evil associations of Hetawaka, where their work was formerly done, and also in preventing loss of time through traveling from their homes to that place.

I have recommended the appointment of a trader for them, whose place of business should be located on the reserve, and believe if the appointment was made that many

of the difficulties an agent now has to contend with in doing business for them would be avoided. At present they purchase supplies from several different merchants, and, as a consequence, much confusion ensues.

There are several small tracts of land now held by these Indians that should be sold, and the proceeds applied for the promotion of their agricultural interests. There are also matters pending between the citizen class of Kickapoos and those who hold in common that require adjustment, and as they have no means applicable for the payment of their expenses to Washington, even if the necessary authority for them to visit that city could be obtained from the Indian Office, I would suggest that a commissioner be sent to them to investigate the matters to which I have referred.

One of the leading chiefs of the tribe, with 27 members thereof, are now visiting the Mexican Kickapoos, in the Indian Territory, without my authority; while representing but a small minority, this faction is very determined, and has retarded the progress of the entire tribe.

The Pottawatomie Indians are advancing in education, morality, Christianity, and self-support. In a period of five years, they have progressed from a discouraged and seemingly helpless community, living generally in wigwams and cultivating but small patches of ground, to a community of prosperous farmers, raising cattle, hogs, horses, and ponies. Their fields are now located on the open prairie; a majority of them have erected substantial houses, inclosed them with fences, planted fruit-trees, and otherwise beautified their surroundings to quite as great an extent as the time and their facilities would permit. During the summer, they have broken 300 acres of prairie, and laid off other tracts, which they purpose inclosing next spring and breaking at their leisure.

Until April, 1873, not a scholar could be obtained from the Prairie Band to attend school. The average attendance during the last fiscal year was 29 pupils, with an enrollment of 44. The school buildings are well supplied with facilities for boarding and lodging the pupils, and also for teaching the females, in addition to their studies, all kinds of household duties. Attached to the school is a farm of 63 acres, well stocked with horses, cattle, hogs, and poultry; the male pupils are taught to participate in all the labor necessary in conducting this farm and in caring for stock. After carefully noting the effect of this course upon the boys, I am convinced that they are quite as industrious and useful as white boys, and that the great difference between the usual adult Indian and white men is, that the latter in youth were taught to labor and the former was not. I think the industrial boarding-school system, if persevered in, will result in the complete civilization of the Indian youth in this agency, and will greatly assist the adult Indians in forming a correct estimate of the value of education, and of learning the absolute necessity of labor as a means of realizing personal independence.

Since a boarding-school was established for the Pottawatomie Indians a number of them who, before their children learned to read and write, perhaps never examined a letter in the alphabet, have learned to correspond in their language with Indians residing at a distance. I have seen letters containing considerable information written in the Indian language with sixteen English letters understandingly read by Indians who had not the slightest knowledge of the use or sound of letters until a very recent period, and have not now, except as applied to such letters; yet I think this will show that adult Indians who may even be prejudiced against education are susceptible to its influences, and may be made aware of some of its uses at least.

The season has been very favorable for farming throughout the reserves embraced in the agency, and a much larger yield of all seeds planted will be realized by the Indians than perhaps in any year they have farmed.

I have found no difficulty in protecting timber growing on the reserves and the personal property of the Indians.

Several persons have been arrested for selling whisky to Indians, under the enactment of February, 1877, in reference to this subject. One has been held in bonds for appearance at the next term of the United States district court for this district. As the law now stands, the traffic in whisky can be greatly reduced, if not entirely stopped.

I consider that all obstacles to the education of Indians in the agency have been overcome. I know that the most reflective men among them are accepting the principles of revealed religion. I am not aware of any reasons, except of trifling nature, that time will remove, that can prevent them from becoming, in a reasonable time, self-supporting communities of civilized and religious persons.

Very respectfully,

M. H. NEWLIN,
Late United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

UNITED STATES INDIAN SERVICE, MACKINAW AGENCY,
Ypsilanti, Mich., September 1, 1878.

SIR: In accordance with instructions from the department, I have the honor to submit herewith my third annual report of the affairs of the Indians under my charge. While I can announce nothing of startling interest as having occurred during the year, I am very positive there has been steady and substantial progress in the line of civilization among the Indians of the agency. Since all have cast away the manners, customs, and address of savage life and adopted those of their white neighbors, they are from year to year adapting themselves to the new condition of things.

This year a much larger amount of crops has been produced than in any former year, although, having no one living among them to direct their labor, their farming, as a general thing, is of a very crude and primitive style, which is also largely owing to the fact that although many teams have been furnished them in former years, no control has thereafter been exercised over them, and generally the man who received them assumed ownership and used them as occasion required for himself, or hired them out for his own benefit, and not infrequently slaughtered them for food. Thus they are almost destitute of teams to-day, as several yoke of oxen have been sold by Indians to whom they were intrusted. The question of the prevention of this abuse is a very difficult one to deal with, as these Indians have, under the last treaties, assumed the rights and duties of citizens. These cattle have been purchased with moneys provided for by treaty stipulations; therefore the question arises, how far the government can interfere in their affairs beyond this compliance with the terms of the treaties under which the tribal relations were laid aside.

Since my last report a much better condition of affairs has prevailed among those Indians who had been so much annoyed by persons seeking to deprive them of their homes and improvements; and my interference in behalf of the Indians has called down upon my head the most vindictive assaults from these individuals, as they seem to think the Indians and their property their lawful prey, and any interference in their efforts to appropriate it to their own benefit is an innovation of their time-honored occupation they cannot tamely submit to. Hence the most persistent efforts to procure my removal have been made by this *clique*, aided by men who occupy positions which give character to their statements. With only a partial knowledge of facts, these have been led to certify statements which have no foundation in fact. But when the light of investigation has been let in upon their vile charges they have vanished like morning vapor before the summer sun.

The accompanying papers show the condition and number, so far as has been ascertained, of buildings belonging to the government, which have been constructed in previous years for various purposes of the agency. Many have been lost or the title transferred by the sale to other parties, in previous years, of the land on which they stood, having been given to Indians as allotments under the treaty, and no reserve having been made of the buildings. This has been done in respect to school-houses in many instances, undoubtedly through carelessness or ignorance of the situation of the buildings on the part of the agent.

The crops this year have been better than usual, and I think an increase over that of any previous year. Yet owing to the fact that a very large proportion of the able-bodied younger men are largely employed by others in various occupations, as fishermen, farmers, wood-choppers, lumbermen, and other pursuits, the amount reported as their productions does not exhibit any fair proportion of the product of their labor. Their poverty and daily necessities require payment for their labor as fast as performed, therefore they cannot wait the clearing of land and the growth of crops for their pay and subsistence. Hence few of them, who have kept their lands, have more than five or ten acres under cultivation, which is often performed without a team, the crop being put in with a hoe.

The statistics accompanying this report will give you some idea of the amount of the various articles from which they derive their support. Of course some of these are matters of estimate, as it is nearly impossible to arrive at great accuracy in regard to their affairs even by the most diligent inquiry.

The *Chippewas of Lake Superior* seem to keep on in the most even-paced course, only cultivating land enough to supply them with vegetables in summer and generally potatoes for winter, depending mostly upon fishing and work for lumbermen, or wood-chopping, for support. Those who come within this agency are mostly living at L'Anse and Baraga, although considerable numbers reside on Grand Island, at Cedar River, and other points, where inducements for fishing, hunting, or trapping are most attractive. During the berry season the women and children make considerable additions to their income by picking berries for the market. I think their progress in a religious and educational point of view is encouraging, but in an industrial aspect I can only say, they manage to support themselves. Some additional lands have been allotted them this year, for the use of those who have become of age since the last allotment.

They are very importunate in the matter of the investment and payment of interest

upon the \$20,000 balance due them on account of sale of a township belonging to them in 1873. I would suggest that it be made a matter of attention at the meeting of the next session of the present Congress, that the bill now pending upon this subject be considered and passed, as there is no good reason why they should not have the income from the money due them.

The *Pottawatomies of Huron* live in the southern part of the State, in the county of Calhoun, near its southern boundary, on their favorite river, the "Nottawasipe," where they are gathered on a piece of land from which they derive very little support, subsisting principally by labor for the neighboring farmers. Their number seems to remain nearly stationary, the births about equaling the deaths. They are anxiously awaiting the action of Congress to order the payment of the balance for moneys long since due, which if paid and properly invested would place them in comfortable circumstances.

The *Chippewas of Saginaw, Swan Creek, and Black River* were in 1855 granted by treaty made at that time certain unsold lands in six townships selected in Isabella County, upon which the most part of the tribe located. All who were of the age of 21 years or over received lands in severalty, but through the shameful neglect of the agents then and since in charge, they have frittered a large proportion of them away, and to-day, I am of the opinion, not one in ten who have had these lands owns an acre, and they are as poor as if they had never owned them. More than two-thirds of the tribe are now living in scattered groups along the Saginaw River or Bay, near the homes of their childhood, living as best they can; those who remain on the reservation are in far the most favorable circumstances.

There are many of the younger people who are coming of age who are now receiving allotments of land, upon which I most earnestly recommend in all cases that an inalienable clause be inserted, which, if insisted upon and adhered to, would have added more than a million of dollars to the wealth of former allottees of these lands. This squandering of their patrimony in the past cannot now be remedied, but enough remains for the future to help very materially the generation now coming into possession of their heritage.

Large trespasses have been committed from year to year upon these lands, to which the attention of the proper officers has been called, but still the work of robbery and destruction goes on unchecked. I can only suggest that an attorney should be employed to prosecute these trespassers and assist in defending these poor people, in cases where they have been the victims of fraudulent transactions in obtaining titles to their lands by means which should consign the men who have perpetrated them to the penitentiary without benefit of pardon or clergy.

The *Ottawas and Chippewas* who occupy the western portion of the State, or rather who are scattered along the western shore of the State which borders on Lake Michigan, north of the Grand River to and including Mackinaw, are supposed to number near 6,000. I think, on the whole, they are more enterprising and industrious than either of the tribes named, producing more *per capita* in the way of moneyed or marketable commodities than any other. In many respects, however, they are more favorably situated than many of the other tribes, in mildness of climate, market for the products of the forest, particularly cord-wood and hemlock-bark. The land also is well adapted to the growth of wheat and other cereals, while no finer potatoes can be grown in any country than on their reservations; which reservations, by the way, are fast passing from their possession, by the negligent policy named when speaking of the lands of the Chippewas of Saginaw, Swan Creek, and Black River, and the mistake of opening their reservations to homestead settlement by white settlers. It does seem that humanity and a due regard for the nation's plighted faith should have allowed a half-dozen townships to have been kept sacred to the occupancy of these poor people, instead of opening their lands to the occupancy of men who not infrequently take special delight (or seem to) in annoying them, and making their lives unhappy and miserable. They become disheartened and discouraged, dispose of their lands, and seek a new and what they hope may be a more peaceful abode. Their horses and cattle have been shot, and their crops are often destroyed by the white men's cattle and hogs, with other annoyances; all of which demonstrates it is not well for them to live among the white people.

I do not propose to prolong this report, as many of the subjects to which I might refer either have been or will be made the subject of special reports, thereby avoiding the necessity of printing matter which may be deemed irrelevant to the design of an annual report. Yet I cannot forbear repeating my unshaken confidence, which has strengthened by experience and observation, that the present policy of the Indian Department is the only true one, and to which the country may confidently look for the solution of this much-discussed question of the Indian management; education of the young, manual-labor schools, where both boys and girls shall be trained in the duties and responsibilities of life, the boys in ordinary farm-work and simpler mechanical trades; the girls in sewing and ordinary housework, and thus making them, with only the help of a very few persons to direct and control them after they are once started,

self-supporting. These are the vocations of peace and not of war. The Indian who will not work should not be fed; I am speaking of the Indians of the West who are pensioners upon the Indian commissariat.

Although I would suggest manual-labor schools for this agency, and boarding to the extent of a dinner for even the smaller scholars, the farm, when once in cultivation, should furnish the materials required for the board, while the older boys and girls should perform the labor needed to furnish and cook.

The interest manifested in the schools since I first came into charge of the agency has very materially increased. The parents have shown much more interest in the education of their children than formerly, and as by their intercourse with the whites they see and appreciate the advantages education gives the latter, in a business point of view, they become anxious that this benefit shall be conferred upon their children. The suggestion of a dinner to the children at school is to induce regularity of attendance, which a dinner would insure to a child that, as a rule, is but scantily fed. The attendance at school becomes to an Indian child often irksome, as it does to most children, but particularly so to the former, as they are not used to confinement, and Indian parents seldom, if ever, compel their children to go, nor will they submit to their punishment by a teacher.

While the schools are prospering, the Protestant churches are doing a good work, adding many to their membership, especially among the Methodist Episcopal Church.

The health of the people has been generally good, although the small-pox and scarletina made their appearance in some localities last winter, but were soon checked by prompt treatment and attention.

I think there is a material decrease in the amount of drunkenness among the Indians as they become educated and christianized. I think the past year has been one of more material advancement in all respects than any previous one. Finally, I regard the progress of these Indians in the path of a higher and better civilization as assured and steadily onward and forward. A judicious use of their own funds, the holding of all the lands heretofore set apart for them, sacredly to their own use and theirs only, by properly guarded title-deeds, will at no distant day place them upon the plane of social and pecuniary respectability and independence.

I am, sir, very respectfully, your obedient servant,

GEO. W. LEE,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

CHIPPEWA AGENCY,
Leech Lake, Minn., August 27, 1878.

SIR: My third annual report is herewith submitted. The past year has been a very busy one with us all. To go over all the ground would be tedious and make quite too long a story.

As a part of our winter's work we planned to cut and haul 100,000 feet of pine logs. The lack of snow cut us short; only 80,000 feet were secured. To transport supplies by wagon in the winter is a new experience in this country, and added to our work and expense. The spring season was as unusual as the winter. Heretofore it has been practicable to start out our teams on the ice to reach and plow the patches of land scattered around the shores and islands of the lake where the Indians do their farming. This year not a movement on the ice could be made. But as from the agency we can only get access to the Indians by the lake, our first work was to build a barge to transport teams, agricultural implements, and supplies. The barge was built and ready for service April 16, and is item number one under the head of

IMPROVEMENTS.

Again and again the barge was wind-bound so that men and teams had to be put on short rations. Of course we could but remember how soon relief from the detention, discomfort, and expense would come if the steamboat were only available.

In view of the spring's experience and the accumulated arguments in favor of the work, authority was finally secured for rebuilding the steamboat before the engine and machinery should, like the old bulk, become utterly worthless. Such an undertaking with the only help and means available was not a small one. To claim that the outcome of our summer's work gives us a model steamboat would be very foolish. But that we have a boat adequate for all agency use is a demonstrated fact, since, as I write these words, the new Chippewa is successfully in service, boating the hay for the agency. The steamboat is item number two under this head.

I have also to notice the addition made to the boarding-school dwelling of a one-story frame building 18 by 28 feet. By means of it the school accommodations will be

so increased that from 20 to 24 boarding scholars can soon be received. What is now used for the school was designed for the agent's house, and never afforded the requisite rooms for a boys' and girls' school with entirely separate apartments.

The only further thing under this head to which allusion need be made is the working over and making available, for grinding, of a pair of French burr mill-stones, to take the place of the portable grist-mill heretofore in use. We have now a corn-mill of double the capacity of the portable, and expect it will be a valuable incentive to Indian labor and civilization.

In the way of

PROGRESS AMONG THE INDIANS,

I think it may be claimed for them that more honest labor has been performed *by them* in preparing new land and raising crops than during any one year since their location here. I am aware that, compared with more favorably located agencies or more enterprising Indians, our best is not very pretentious. Still, I can safely say that at least two families have raised one hundred bushels of corn each, and that well on to 400 families have done very commendably in helping themselves to the best crops of corn and potatoes they have ever raised. Besides these staples they have a bountiful supply of turnips, squashes, and pumpkins. They were stimulated to this work by a generous issue of hoes and mattocks and the promise that faithful workers should receive such extra assistance in rations as the funds would allow.

The statistics accompanying this report were made up so early that the growing crops had to be estimated. From them I will only quote here the following: Estimate of corn raised by the Indians is 3,000 bushels. Estimate of potatoes raised by the Indians is 2,000 bushels. It is my best judgment that this is an underestimate. The quantity of both would have been decidedly larger had rains been timely and abundant.

EDUCATION.

The boarding and day school has been well maintained during 8 months, with an increase of one-third in the average attendance of the boarding scholars—the largest attendance during any one month being 37, and the largest average attendance during any one month was 35. Let those who may think this a discouraging exhibit bear in mind that it is not the fault of the faithful employés in this department of agency work, but the direct result of the unfortunate location of the agency so far one side from the main settlements of the people, and, worst of all, quite one side from the productive lands where either the agency or the Indians can hope for good crops. Figure over this question never so much, these unwelcome facts still remain.

We have done something, however, the present season toward bettering our condition. Across the bay, some two miles from school and agency buildings, is a point of very fertile land. There we have the promise of a fine crop of potatoes this year, and hope to make it still more serviceable hereafter by bringing more of it under cultivation.

THE MISSIONARY WORK,

which still has the faithful care of Rev. S. G. Wright, is prosperous. The contributions in this direction, though not large, have been generous and doubly helpful; giving us substantial aid in money, and clothing and bedding for the school, and the grateful cheer which comes with the consciousness of being remembered by christian friends in the land of pleasant homes we have left behind us. The little church organization, which last year reported 18 Indian members, now has 30, and 8 whites. Of these the most are members of the school, but several heads of families are worthy and active members. The testimony of their heathen relatives is that these members give evidence of such a change as the heathen cannot account for.

For future

AGGRESSIVE WORK,

the means to establish two more schools should be furnished. One at Lake Winnegoshish, and another at Ottertail Point, and in conjunction therewith a practical farmer with teams and all implements for Indian farming. At both these points the soil is really good, and if the government is in earnest to do its part toward a satisfactory solution of the future of these Indians this request should not be disregarded. Correspondence has been had with christian bodies, who have hitherto taken no part in the work among the Indians, with special reference to starting and manning one of these points. With proper government aid I am well satisfied that good results may be secured.

I am constrained again to call attention to the White Oak Point Mississippis. They number almost 800. So remote from the agency and so scattered, an agent cannot feel satisfied to do nothing more than take their diminished annuities to them; and yet, situated as they are, I see nothing so sensible to recommend for them as that they be incorporated with other Mississippis, not of this agency, but who, like them, are scattered and neglected, and all be taken to White Earth Reservation, where they belong,

and required to remain there. Becoming settled and self-supporting they would furnish the only effective argument for the further transfer of others, until the ideal of the founders of that agency should be fairly realized.

Very respectfully, your obedient servant,

HENRY J. KING,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

RED LAKE AGENCY, MINN.,
August 20, 1878.

SIR: I herewith submit my first annual report of the affairs at this agency. I arrived here so recently, July 22, that I shall be unable to furnish a report as elaborate as the case merits.

LOCATION AND POPULATION.

This agency is about 100 miles nearly north of our only shipping point, Detroit, on the North Pacific Railroad.

The number of Indians and mixed bloods at the last enrollment was 1,163, besides employés and others belonging to their families, about 20.

AGRICULTURE.

It is estimated that this reservation contains upward of 3,000,000 acres, of which one-third is tillable; the remaining portion is suitable for grazing, wooded, or worthless; probably fully one-half of it is very nearly worthless, being made up of swamp in all or nearly all the northern portion. There are valuable bodies of white, red, or Norway, and jack pine, much of which is quite near streams on which the logs might readily be driven to market. In addition to the pine there are thousands of acres of hard wood, such as the sugar-maple, elm, oak, birch, basswood, and others. The pine-land soil is uniformly a light, sandy one, nearly worthless, while the hard-wood soil is always a rich black, vegetable mold, capable of producing fine crops.

The land now in cultivation, some of it, I am assured, has been cultivated each year for the past thirty or forty years, and a failure of crop is unknown. Their crops this year will yield the following, in bushels: wheat, 860; corn, 9,500; potatoes, 3,000; turnips, onions, beans, &c., 250. The crop of wheat and corn is very much larger than was ever raised here. They have cut about 250 tons of hay, made 50,000 pounds of sugar, picked 50 bushels of berries (owing to the late frosts the berries were a failure); caught 600 barrels of fish, \$3,500 worth of furs, and dug Seneca-root to the amount of 14,000 pounds, worth \$3,500.

EDUCATION.

It is exceedingly gratifying to be able to report such progress in this, the most important part of the work. A large and commodious boarding-house was completed last year, and a fully-equipped boarding-school was opened last November, under the management of Miss Mary C. Warren as teacher, whose extensive experience and familiarity with both languages render her a valuable acquisition. Ten boys, and as many girls, were taken into the boarding-school, clothed, fed, taught; the girls, household work in the various branches, under Miss S. F. Campbell, as matron; the boys, farming and gardening, under the superintendence of E. L. Warren. The boys, with some assistance in plowing and harvesting, have secured about 40 bushels of wheat, 10 of corn, 125 of potatoes, 45 of other vegetables, besides much other garden-stuff for use in the boarding-house. In addition to the regular boarding scholars there have been in attendance about 20 day pupils, filling up the school to its entire present capacity. It is my design to open, as soon as may be, a shop, supplied with suitable tools, in which the boys can learn how to do mechanical work. I anticipate good results from the boarding-school so auspiciously opened.

MISSIONARY WORK.

This has been under the care of the Protestant Episcopal mission, who sent to this field Revs. Samuel Madison and Fred. Smith last year; but, owing to the death of the former, the labor has fallen upon the latter, until recently Rev. Mark Hart arrived here to assist him; both of these clergymen are natives. Some \$400 have been expended for missionary purposes in the year, beside various presents of cows to the chiefs and those who will properly care for them, garden seeds, tools, &c. A church edifice is in process of erection, to be completed December 1.

Two other native clergymen from White Earth, under the tutelage of Rev. J. A. Gillan, are preparing to commence a mission on the north side of the lake, where little, if any, missionary work has been done. They will commence there in a few weeks.

CIVILIZATION AND PROGRESS.

This is seen in the increase of land in cultivation, increased crops, fencing made, improved dwellings, more stoves, tables, chairs, crockery, better clothing, greater cleanliness, more washtubs in use, more comfortable homes, growing desire for civilized ways, anxiety to have their children educated, more knitting and sewing done than formerly, more stock each year.

Quite a quantity of logs were cut, but owing to a lack of water they have not been driven to the mill. This is a serious obstacle to progress, as some seven or eight hundred dollars are tied up in the logs in Mud Creek, which are greatly needed. Since my arrival some 32,000 feet of lumber have been cut, hauled, and much of it sawed. It is my purpose to secure enough this fall to meet the most pressing demands now, and next winter a good supply for next year's use.

I now expect to put in a good flouring-mill this fall, in time to convert their wheat into nice flour. This will prove a great incentive to labor, on the part of the Indians, in clearing up more land and raising larger crops, especially of wheat, as they can soon see flour, of which they are extravagantly fond, from their own little fields.

A new source of profit has been developed in the last year—Seneca root, of which they have dug \$3,500 worth.

AGENCY BUILDINGS.

I report the following good, comfortable frame buildings: Five dwelling-houses; two schools, one being a boarding-house, the other a school-house; one water-power saw-mill, with corn-mill attached; the saw-mill is supplied with a planer, matcher, edger, shingle and cut-off saws; one double office for the agent and physician; one warehouse; one blacksmith-shop; one carpenter-shop, not so good as the other buildings; one horse-barn, with basement; one common barn; one wagon-shed, and one granary.

SANITARY.

This agency is fortunate in retaining the services of so competent, faithful, and popular a physician as Dr. C. P. Allen, who has been here since July, 1873, and who has, by his skill in treating their sick, coupled with his willingness to render them all the assistance in his power, won their confidence generally. This is, doubtless, an important element in the work of reclaiming these superstitious Indians from their incantations and medicine-dances. Dr. Allen has treated in the past year 1,399 cases, with but two deaths among his patients. He visits the sick at their homes whenever needed. Medicine-dances are not done away, however; the aged cling to their time-honored customs with great tenacity. The younger portion pay little attention to them.

The diseases are such as would be expected in a people living as they do, some of the time on a very meager diet, with great exposure, much filth and vermin. Scrofula and kindred diseases carry them off rapidly, although the births fully keep pace with the deaths. Dr. Allen is of the opinion that as their manner of living improves, with a richer diet of wheat flour intermixed, their health will improve, especially as they are anxious to use soap on their persons. He regards *soap* as a great civilizer.

SUGGESTIONS.

Owing to the withholding of their cash annuities for this year by Congress, and their disturbed state of mind arising therefrom, I would respectfully suggest that the amount which they have received for the past fourteen years and which was withheld this, be appropriated early in the next session of Congress, thus fulfilling what was generally understood, at the time the treaty was made, to be what was promised by the government and accepted by this people. Let the great and prosperous American Government act generously toward a weak people who are anxious to adopt the ways of civilized life, and who have always been friendly to the whites; who are reasonably quiet and orderly; who look to the government for assistance in their struggle to rise from paganism to civilized life and citizenship.

I have the honor to be, very respectfully, your obedient servant,

ASA D. BAKER,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

CHIPPEWA AGENCY,
White Earth, Minn., August 30, 1878.

SIR: I have the honor to submit the following, my first annual report.

This reservation, 36 miles square, is located in Becker County of this State, well adapted for agricultural and grazing purpose, and a better region of country of the same extent cannot be found in the Northwest.

In March, on succeeding my predecessor as agent for the Indians located here, I found

the condition of affairs much disturbed by discussion and ill-feeling, but am able to say that all disturbances have subsided and harmony and good-will have succeeded turmoils and troubles.

CONDITION.

The Indians residing permanently on the reservation are of the *Mississippi*, *Ottertail Pillager*, and *Pembina bands of Chippewas*, and number 2872. The larger proportion of the Mississippi bands still remaining on the White Oak Point Reservation and at Mille Lac are in a deplorable condition, and subjects of annoyance to the white people surrounding them. The majority of the "removal" Peminas, partly through mismanagement, are absent from the reservation, many having returned two or three years ago to the country they ceded to the government, and others seeking subsistence wherever it can be found. Not having sufficient means to adequately assist them, and thereby encourage them to follow the example of the Mississippi Indians, I would suggest that ample assistance be afforded them, and all absent ones be compelled to remain on their allotted lands, which are so well adapted for the support of those who will work and are encouraged to do so.

The Ottertail Pillagers are quite industrious, and would make as good an exhibit in the appearance of their farms if they had received the same assistance as the other and more fortunate bands of the tribe.

The efforts made by the Mississippis this year are praiseworthy; the spring work they commenced with good will; all land that was in condition or could be placed in shape was seeded, and the results are not only gratifying to the Indians themselves, but to myself also. Well and truly has Providence rewarded them for their patience and perseverance, and for disappointments in the crops of former years. The grasshoppers have for several seasons infested this section of the country, and have brought many to the verge of destitution. However, with some further assistance the government may be pleased to afford those who were the most afflicted by the scourge, I can safely predict that with a few such seasons as the one we are being blessed with, and the absence of grasshoppers, these Indians will soon be on the way to prosperity, happiness, and consequently contentment.

MILLS.

I await only the authority from the Indian Bureau to commence operations in erecting the grist-mill for which a reappropriation was made at the last session of Congress. As the season advances, the necessity for commencing the work is commensurate with the importance of the benefit to the Indians such mill will be when completed.

The Rice River mill will soon be placed in running order. The dam, which was in constant danger of washing out, has been repaired, and the indications are that it will cease to be a matter of annoyance and trouble. I am informed that quite a large amount of pine timber on the Wild Rice River has been partially destroyed or killed by fires. I deem it good policy to allow of its immediate cutting and manufacturing into lumber before it becomes too much damaged and unfit for use.

SCHOOLS.

The school closed about the middle of June for a vacation during the summer months' and for repairs on school buildings. As the weather remains very warm, and the gathering of wild rice is at hand, when the parents take their children with them, the fall session will not commence as soon as I had hoped. There is an increased desire on the part of Indian parents to send their children to school, and I fear that my means will be inadequate to accommodate the number who wish to enter the boarding-school and whose parents reside at a distant part of the reservation. During the five months of my administration the school has been conducted in a very satisfactory manner. The average attendance during the months of April, May, and June was as follows:

Boarding scholars	72
Day and boarding scholars.....	99

It is to be hoped that the increasing desire evinced by the Indians for the education of their children may be encouraged and help increased by liberal appropriations.

The free school at Rice River is maintained by and under the control of the Episcopal Church; it has an attendance of 22 scholars, and is conducted by Rev. Charles Wright, deacon of Saint Stephen's Church at that place.

SANITARY.

Under the efficient care of the physician, Dr. Rosser, the health of the reservation people may be said to have been good, and better than the less fortunate white people outside of the reservation. Owing to the extreme heat this season, summer complaints have prevailed to some extent, but not in anywise out of the control of the physician. An epidemic whooping cough existed, but has disappeared. The Indians feel thankful to the government for the appropriation which affords them such valuable medical

services as are rendered by Dr. Rosser, and such as are needed in a large community as this one.

I would respectfully suggest that hereafter persons employed as physicians on any Indian reservation shall be graduates of some medical college, and have the necessary diplomas. Heretofore persons have been employed who have assumed the responsibilities of physicians, and the consequences were that they met with poor success in keeping down sickness, as well as to cause the Indians to lose faith in the superiority of the white man's medicines and to return to their former methods of curing their sick.

RELIGIOUS.

The Episcopal mission is under the charge of Rev. J. A. Gilfillan. His work calls him to different parts of the reservation, and his services are of incalculable value both in a spiritual way as well as in the enlightenment of the young mind. He reports the number of Indians and mixed-bloods connected with his church and baptized therein at 450. Number of communicants, 200. Aid donated through the Episcopal Church for the year ending September 1, \$5,632.24; donations from Indians for missions at home and abroad, \$60.

Here I quote a portion of his report in reference to the success of his church in missionary work:

"The Bishop Whipple Hospital is free to all sick having any Indian blood, no full white person having anything to do with it. This is stated to their praise, they having shown themselves fully capable of carrying it on. There is one feature of the mission here that is unique; there is nothing in any Indian agency now existing to match it, nor has there occurred such a thing in the history of the Indian race, namely, that within a little more than two years there have been ordained here to the ministry of the church eight full-blood Indian young men who were trained here, and who since their ordination have done good work christianizing and civilizing their countrymen here and in other places."

Rev. Emmegahbow, the native pastor, is rector of the Saint Columba Church, and for a great number of years has followed his calling, has a large congregation, and is much beloved by his people. Rev. Charles Wright (son of the head chief), of the same faith, is in charge of the church (Saint Stephen's) at Rice River, is meeting with success in missionary work, and is in charge of the free school at that place, before mentioned.

Rev. I. Tomazin, of the Roman Catholic Church, being absent from the reservation, I am unable to obtain any information respecting the progress he is making. I regret Mr. Tomazin's absence, and can say only, judging from his zeal in christianizing and civilizing the Indians, and the numbers attending services on Sundays, that he is meeting with success and that his church is largely represented on this reservation.

POLICE.

Since the organization of the police force I observe a change in the conduct of the few mischievously inclined young men. Better order is observable, and some stolen property recovered. I predict success in the employment of the police, especially as the young men in the force show a determination to perform faithfully all duties required of them. I sincerely believe that the employment of police will be of great benefit to the Indians.

AGRICULTURE.

The disposition to work to increase the size of their farms is stimulated by the good yield of this year's crops. More new land has been broken this year than in any one of the former years since they have been here. (See annual reports.) All the hay has been made, and wheat, oats, and other grains cut and stacked. Land under cultivation this year, 1,664 acres; land broken this year, 465 acres.

There has been raised on the reservation, according to my estimates—

Wheat	bushels..	18,000
Oats.....	do....	4,860
Barley.....	do....	770
Corn.....	do....	3,281
Potatoes.....	do....	22,000
Beets.....	do....	500
Onions.....	do....	550
Carrots.....	do....	140
Turnips.....	do....	12,000
Beans.....	do....	700
Pease.....	do....	400
Cabbages.....	heads..	6,000
Pumpkins.....		2,000
Melons.....		450
Tons of hay made.....		2,428

On the reservation there are—

Working-oxen	head..	213
Cows.....	do...	237
Small cattle.....	do...	363
Horses.....	do...	244
Swine.....	do...	475

As the Indians are turning their attention to agricultural and other pursuits, and owing to the low price and scarcity, a very few furs were caught during the past year.

There was made last spring, according to the best information I am able to obtain, 25,000 pounds of maple sugar, and the yield in wild rice, which is now in a state for gathering, will reach 150 bushels.

The Seneca snake-root has been a source of profit, and the means of great help to the destitute who raised no crops last year. The fortunate discovery and abundance of the root on the reservation seems an act of Providence. The extraordinary amount dug and forwarded to the market has occasioned a great reduction in the price it brought a few months ago, but as the crops are more matured I fear nothing in the way of hunger in the future.

RECOMMENDATIONS.

In conclusion permit me to recommend the consolidation of at least all the Chippewas in Minnesota upon this productive reservation, where, with proper management, in a short time (in my opinion), and with the example set before them already by the Indians now here, they would soon be made self-supporting. I consider that it would be economy on the part of the government to do so, and to make them become producers instead of consumers.

Very respectfully, your obedient servant,

C. A. RUFFEE,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

BLACKFEET AGENCY, MONT.,
July 25, 1878.

SIR: I have the honor to forward this, my second annual report of the agency under my charge.

The tribes under my supervision, *Blackfeet*, *Bloods*, and *Piegans*, are really one people, having the same origin, language, and habits, and every year showing less of what may have been their former distinctions, and now calling themselves by the general name *Piegans*. Their particular organization has been in bands, or large families, under chiefs; the bands vary in size from ten up to one hundred lodges, and in the aggregate, as near as can be ascertained, number over 7,500 souls. They are governed by the rules or laws laid down by the band chiefs in council, by whom also one or more head chiefs are elected. The laws are fairly enforced and obeyed, and the agency recognized as authority above their chiefs, and his consent is necessary to a *blanket* punishment.

It must be remembered that only eight years since these tribes were guilty of such crimes and outrages on the whites as to call for the severe punishment inflicted upon them by Colonel Baker; and which at the time many thought so severe as to be called *barbarous*—whether or not the result has been beneficial. Immediately after the terrible lesson of the destruction of the band of "Double Runner," with all their effects of lodges, meat, and ponies, a council of the band chiefs was held, and while some were for the old system of having blood for blood, the larger number prevailed, with the judicious advice "that the power of the white man to wipe them out had been shown, and that he pursued a war policy hitherto unknown to them—that of taking neither prisoners nor spoils—and that to attempt or provoke further war would only result in their total extermination; therefore to make peace and become friends with the white man, accept their rule and obey their instructions" was the wise and only proper course. That advice was accepted and acted on, and now, for more than eight years, has been consistently followed. Its fruits of order, peace, the fearful results of the whisky traffic and drinking banished, the lessened deaths by violence, are now acknowledged as the following of that recommended action, and make certain the continued good feeling and friendship of these tribes for the future. There is now a *value* in this altered condition and relation to the white men not foreseen when the change was going on. Since the warlike Sioux, under Sitting Bull, have taken shelter across the line in Canada, these Piegans, who have always been the implacable foes of the Sioux, and who are fully their equal in courage and intelligence, now become a sort of guard against any sudden irruption of the Sioux. Their reservation runs along the Canada line for five degrees of longitude, and if unable to make stand at any one point

against a suddenly-concentrated force, yet they could and would by scouts make widely known the movement, so that the military and settlers outside the reservation could be prepared.

There have been very few instances of crime during the year. Only one homicide, and that decided to be justifiable, and no charge has been made of any theft or outrage on white men.

The distribution of annuity goods, the first week in October last, was of more than ordinary interest. Owing to the purchase of the goods in 1876 being too late in the season they failed to reach the agency that year, and only came along with those for 1877. Thus there was a two-years' supply for one issue. Care was taken by the issue of due notice to those at a distance to have the largest possible attendance. Twelve bands, with nearly a thousand lodges, encamped around the agency. On the day of distribution the bands sat in long lines on the grass, and the chiefs made distribution under the supervision of the agent and Captain Sanno, Seventh United States Infantry. Each Indian received his or her portion, and the whole arrangement was satisfactorily carried out. In no previous distribution had the old, infirm, and children been so comfortably clothed and provided for against winter.

AGRICULTURE

The crops of last year were successfully gathered; the yield was beyond what could have been expected, being the first taken from newly-broken, rough soil. The distribution of potatoes, turnips, &c., to the Indians during the winter and spring were highly valued. It was no uncommon thing to see an Indian child with a raw potato in hand eating with as much relish as a white boy would an apple. This year the crops were put in early and with great care. The Indian men held back last year and let the squaws work, but this year there was more male help offered than could be immediately employed, yet the number was considerable as those that continued to labor were not very many, constant changes being the rule among those employed. Quite a number of Indians—about twelve—have this year broken ground in various suitable spots and put in crops, and the growth and prospects of all give promise of a full harvest.

PROGRESS.

Ten Indians have built substantial houses, and some of them have fenced in ground for breaking up next season, and the example thus set is sure to be followed by others. As an evidence of their altered practice, I would mention that in addition to their submission to their own rules and laws, they have during the year brought to this agency thirty-seven horses and mules, the property of white men (and found straying on the prairie), and which were restored to their owners.

MISSIONARY.

These tribes present a favorable field for the missionary; their superstitious beliefs and practices have but slight hold on them and would soon vanish before better light. My duties are such that beyond Sabbath service, my opportunities are few. The want of a Christian minister has been urged on the Methodist Episcopal Church, to which this agency has a right to look, and it is to be hoped that if the condition of their funds permits, the want may be supplied.

EDUCATION.

The day school has presented many encouraging features during the year. While the large camp was near, the attendance was greatly increased and the progress made satisfactory. The teachers have labored faithfully to make the pupils understand what was taught, to speak English, and to comprehend the rules of arithmetic, not to merely repeat them. The girls have had their regular day sewing each week. One feature of the management was especially apparent: the children liked it, were glad to come, and were fond of the exercises and of their teachers. In some cases when the children were taken away by their parents when moving off, it had almost to be done by violence, and when a legal holiday would be announced, it was evident that a continued session would have been preferred. In several instances the children showed their attachment to the school by breaking away from camp and returning.

HEALTH.

The general health has been remarkably good; few complaints, excepting the slight diseases of children, which yield readily to the usual simple treatment. When the exposure endured by these Indians and their contempt of cleanliness are considered, either the climate or robust constitutions, or perhaps a union of both, must be credited.

CHANGES.

In addition to the changes going on indicated by the erection of houses and the cultivating of patches of ground, the increasing number of those who now wear the cos-

tume of civilization should be mentioned. The desire to have such dress is increasing among them. To extend these improved matters and make them permanent will require time, patience, and discretion. Many difficulties lie in the way. The Indians have no correct notion of continuous labor, nor of providing beyond the wants of the day. It is rare for the same Indian to work for more than a few days at a time, and he is apt to stop as the whim or notion moves him. Delayed pay is also a difficulty to him even for a week. Many who wanted in pay some article too valuable to be given for less than from four to six days' work had not the perseverance to work the time out, but took the pay in such less valuable articles as they had not so long to wait for. And there is still a large number who will only pursue the chase for a living, and until the game becomes too scarce to afford it, are not likely to give up their roving mode of life.

CONCLUSION.

Looking back on the year's events, there is much of encouragement for the next. The improved willingness to work, the prompt following, although on a small scale, of the farming example, the obedience to their laws and the remarkable decrease of crime, their general docility and universal friendliness to the whites, all point to the better condition of these Indians, which it is to be hoped nothing will occur to frustrate.

Very respectfully, your obedient servant,

JOHN YOUNG,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

CROW AGENCY, MONT.,
August 20, 1878.

SIR: I have the honor to present herewith my second annual report of affairs at the Crow Agency.

The Indians at this agency consist of the *Mountain* and *River Crows*, two tribes who speak the same language and who for many years have had peaceful relations. They still keep up separate organizations, but have intermarried until they have become in many respects one people. The Mountain Crows have been more tractable generally and more willing to come to the reservation than the River Crows. The latter have complained a good deal of bad treatment, and it was very difficult to persuade them to come in to the agency. Besides their complaints the influence of bad white men and whisky-traders kept them from the agency to secure their trade. I sent out six runners at different times before I could bring them in. But since they have found that no week passes without their receiving their rations and that their annuity goods are given them, they are prompt to come at the call of the agent, and both tribes now profess to be attached to their agency and call it their home.

ENCROACHMENTS UPON THE RESERVATION.

The chief complaint of these Indians is of the encroachments on their reservation by miners, prospectors, and drovers, who drive large numbers of horned cattle across it to reach the Union Pacific Railroad for shipment east. The law gives a penalty of one dollar per head for all stock driven on to the reservation, and the treaty provides that "no one shall pass over it" without the consent of these tribes, but the press and public opinion demand that there shall be a road through the reservation for public use. The Indians do not object to the mail, nor the military, nor any others who have a right there, but they strongly object to those who have no legal right passing over their reservation. Their principal objections are that it frightens away their game, and that if they allow any encroachments they are in danger of losing all their land. Some action should be taken at once to make a new treaty or else to live up to the treaty already made. In the mean time the law should be rigidly enforced and the treaty fully observed. If the law is a bad one, its enforcement will cause its repeal; and if the treaty cannot be kept, let a new one be made that will be respected. If these Indians ever go on the war path, it will be from encroachment on their reservation.

CONDITION OF INDIANS.

The tribes at this agency are perhaps the best fed, clothed, and cared for of any Indians in the mountains. The past year has been a very favorable one in this respect, as the annuities, with few exceptions, for two years have been issued during the past year.

The near proximity of the military posts have kept their natural enemies, the Sioux, from their hunting grounds, and they have had, besides the generous supplies of the government, the most successful hunt for years. They have thousands of horses more than they can possibly use; but these are their currency, their bank, their stocks, as

all their wealth consists in their horses and mules. They are as greedy for another horse as the miser for another dollar; and they never part with a good one except as a present, when they usually expect two in return, or when driven to it by hunger.

LOYALTY.

The Crows are loyal to the last degree; they fight all the enemies of the whites whether they are friends or foes. This is the only question that they ask when requested to go to war, and no matter how close and friendly have been their relations, they at once sever them, and go out as scouts or as soldiers, and they are very efficient in their work.

THE RESERVATION

extends some 300 miles, commencing west of the National Park and extending east to a point a few miles from the right bank of Tongue River, bounded by the line between Wyoming and Montana on the south, and the Yellowstone on the north. No finer grazing or agricultural country can be found. The mountain streams bring down the purest water for stock and domestic purposes, and the fall is so great that hundreds of thousands of acres can be irrigated with comparatively little trouble and expense. The whole reservation is said to contain 10,500,000 acres. Wheat, oats, barley, potatoes, melons, and most vegetables grow in perfection, and corn of an early kind ripens sometimes without irrigation. Stock requires no shelter in winter and keeps fat on the millions of acres of bunch-grass that covers the prairies, the foot-hills, and sides of the mountains. Timber is plenty, and good mines are found in some parts of the reservation, and coal is found in unlimited quantities.

THEIR HABITS—WILD, UNTAMED.

The Crows in all their habits are perhaps the wildest Indians on the plains and the farthest from civilization. They have been in contact with the whites for many years, but game has been plenty and they remain usually on their reservation, or near their agency, but a few months in the year, and many of them but a few weeks. They love the excitement of the chase and would live exclusively on buffalo meat if it could be obtained. The first request of the young is "to go to buffalo," and so it is the last request of the aged. Beef is never used when buffalo can be procured.

MANUAL LABOR.

These Indians have never performed any manual labor, with a few exceptions, and these are confined to herding and butchering, except some boys that have been educated at the home. All this has yet to be learned. The squaws have worked in the field planting, thrashing, gathering corn, and policing the grounds. They require constant care and watching, but are willing to work and are faithful in their way. They cut wood and may be employed in various ways. They are the pioneers in work on the reservation, and little except herding, and perhaps work when a team is used, can be expected of the males at present.

Some of the males are tired of the chase, and with a good deal of effort and considerable help from the farmer, they, with their squaws, might be induced to cultivate the soil. At least fifty of the squaws have been induced by presents to work during the past year, at times when the camp is in, but they will, with few exceptions, work but one or two days at a time. Some of them have purchased cattle on their own account this year, and seem anxious to have herds of their own.

SELF-SUPPORT.

Too quick returns must not be expected from a tribe that is constantly at war and that has plenty of game on widely extended hunting-grounds. It will take time, long years, before any considerable portion of them will be at work, but by judicious management, and keeping a portion of the tribe on the reservation, enough can very soon be raised to support the tribe, except, perhaps, clothing and groceries. This should be accomplished in five years with the present appropriations and the present amount of white labor with an increase of assistant farmers; and when once the Indian is convinced that labor is not degrading, that it is the surest and easiest way to live, he will slowly come to the work of self-support.

* * * * *

But little of civilizing work has been done with the Crows, but all that could be expected from eight different agents in ten years and with some totally unfitted for their position by instinct, education, and by social surroundings.

THE WORK OF THE YEAR

has been carried forward under difficulties that have been almost insuperable. The need of a superintendent is severely felt. Important matters must all be referred to the Commissioner. Answers by telegraph have been seventeen days on the way, and by mail forty days have elapsed before answers have been received when letters have

been promptly answered. There have been no agricultural implements here in season for use, except two old plows, nor could they be purchased in the Territory; no wagons for heavy work but what were improvised from old condemned wheels gathered from the trader's store, the condemned pile, or from broken-down military wagons, and no transportation for the agent except that borrowed from the contractor.

FARM WORK.

The agency has never boasted anything but a small garden, or if it has boasted of it, it has never had it since it has been located here. With these disadvantages about thirty-five acres have been planted and sown, and the yield is estimated by the farmer to be 120,000 pounds of potatoes, 4,000 of corn, 2,400 of wheat, 5,600 of oats, 3,500 of pease, and 3,500 of turnips, besides a large amount of vegetables of all kinds, and melons, squashes, and pumpkins, all of which are greatly prized by the Indians. I was told by those resident here that crops could not be raised—it was too cold—too near the mountains, but no finer crops have been raised in the Territory.

Having no way to thrash except in the rudest way possible, there was considerable loss in harvesting, but it has demonstrated the fact that good crops can be cultivated near the agency. The Indians looked on with surprise and unbounded satisfaction, which was greatly increased when the corn and other products were distributed among them.

I was also informed that the Indians could not be restrained from digging the potatoes as soon as planted, and if they escaped that danger they would dig them before they were ripe, and that they would burn the fences for wood, as they had done heretofore. But I took Indian law and made the community responsible for the work of individuals, notifying them that if the crops were injured or the poles burned they would have all their rations cut off. No Indian has been in the field (I wish I could say as much of soldiers quartered near), and only a few poles were taken, and stopping rations and compelling the squaws to draw them with their ponies and replace them, stopped the stealing at once.

The corn was a great luxury and eagerly sought for—they have a tradition of a time “when they had no horses and raised corn”—and given in payment for labor performed in harvesting. The forty Indians engaged in the work promised to raise corn and vegetables for themselves next year.

Five thousand poles have been hauled and placed around about 200 acres of land, and the fence will be erected as soon as the haying season is over, and ten thousand more have been cut in the mountains, nearly or quite enough to fence fully five hundred acres. The machinery for a water saw-mill has been purchased and will probably arrive this autumn, when a ditch will be dug through the farming lands, and the water not only be used for turning the mill but for irrigation. It will not only irrigate the land that is and should be broken up, but it should be used to irrigate the land so as to raise all the hay needed for the agency that now has to be hauled from ten to twenty miles at great expense.

On my arrival here one year since, the steam-mill was burned—a mass of ruins; there was not lumber enough to make a coffin without tearing down a building; the stables were falling down and the buildings were almost wholly out of repair, and the grounds in and around the stockade were a mass of the most disgusting filth. The mill has been repaired and about 50,000 feet of lumber sawed, from logs drawn fifteen miles. The stable walls have been repaired, the roofs shingled, the stockade buildings repaired, and hundreds of loads of filth have been removed and either burned or thrown into the creek, and the whole place is policed—Indian camps and all—regularly every week, and most of it is done by Indian labor.

SCHOOLS.

The school has been very successful, not in great numbers, but in the amount of work that has been accomplished. There have been one hundred names on the register and with about one-third that of regular attendance. The children are tractable, learn easily, but cannot be held in the school-room as long as white children, as when once they lose their interest it cannot be regained during the session.

THE HOME

cannot be a success until there are better accommodations for the children. Fifteen children have been during the year under the care of the matron, and great improvement has been made in education, habits, manners, and in industry and skill and cleanliness, and order in domestic work and on the farm. The girls sew, cut and make dresses, and attend to domestic duties as well as the average of girls of their age and opportunities. The boys herd, cut wood, drive teams, rake hay, assist in plowing and planting as well as most boys who have never been used to self-control. Two have been apprenticed, one to the blacksmith and the other to the carpenter, and with good promise of success. * * *

RATIONS

have never since the treaty was made been issued as regularly as during the past year. No Indian, unless for bad behavior in a very few instances, has come for his rations without receiving all that he was entitled to, and a large quantity of provisions were left over, not being required during the fiscal year.

EMPLOYÉS.

Except in a very few instances, the employés have been faithful to their trust during the year. When I came here there were no regular hours of labor. I at once instituted the ten-hour system and required all to report promptly or else find easier positions. I am happy to say that, except in the instances above referred to, they responded cheerfully, and they have accomplished as much work as they would if laboring for a private individual.

HEALTH.

There has been a marked improvement in the health of the tribes. On my appointment I secured the services of Dr. Marselis, a physician of great experience and skill. He soon gained the confidence of the Indians, and the result has been to stop the progress of disease to a great extent. Syphilis is the worst form of disease that is found among them, engendered, they say, from associating with the soldiers; but prompt and skillful measures have checked the disease, so that there is much less of it in camp than at any former time since its introduction. I regret to say that Dr. Marselis died at the agency just after the commencement of the fiscal year, greatly regretted not only by the Indians but by all the employés and whites at the agency. He was a man of great ability, and would have been a man of mark in his profession anywhere, and a peer among the best of his associates. He sought this country for his health, and the agency was fortunate in securing his services. * * *

THE RAID OF THE NEZ PERCÉS AND OF THE BANNOCKS

the past year, both of whom made the Crow Agency their objective point, hoping to get aid and comfort from the Crows, has been a source of great difficulty in making arrangements for Indian industry, as it has kept them a great deal of the time on the war-path. These tribes have not only been willing to fight these hostile tribes, who were their friends, but they have given timely succor to wounded white men, bringing them into the agency, on their own ponies, at great inconvenience to themselves, and with as much care as soldiers would have exercised.

Very respectfully,

GEO. W. FROST,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

FLATHEAD AGENCY, MONT., *August 12, 1878.*

SIR: In compliance with instructions received from your office, under date of July 1, 1878, I have the honor to transmit herewith my second annual report.

GENERAL TOPOGRAPHY.

On a small tributary of the Jocko River, and distant about two miles from that stream, at the head of the Jocko Valley, is situated the Flathead Agency. One mile to the rear of the agency buildings a chain of lofty mountains rise abruptly from the valley, forming no foot-hills, and towering grandly above the scene. The mountains are covered with a dense forest of fir, pine, and tamarack, which grows very large and furnishes excellent lumber. In the lofty range, and in close proximity to the agency, are several clear mountain lakes, abounding in speckled trout, and from one of those lakes a water-fall or cataract over 1,000 feet high, of great beauty and grandeur, falls into the valley, about 8 miles northwest of the agency, forming one of the tributaries of the Jocko River.

The valley is formed in a sort of triangular square, about 5 miles in breadth and 12 in length. Along the river and tributaries there is some very excellent farming-land, cultivated mostly by *Flatheads* and half-breeds, but a large portion of it is rocky and gravelly. Following down the Jocko to its confluence with the Pend d'Oreille River the valley closes, and for a few miles the Jocko rushes through a narrow gorge, but before joining its waters with the Pend d'Oreille the valley again opens into a rich and fertile plain, where a large number of Indian farms are located. Good log-houses and well-fenced farms with waving fields of grain give evidence of husbandry and thrift.

Leaving the Jocko Valley to the left and passing through a narrow cañon and over a low divide of hills, which form the north side of that valley, the road leads to Saint

Ignatius Mission, some 17 miles from the agency, where the Indian school is located, and is taught by Sisters of Charity. A large church, convent, and dwelling-house for the missionaries are surrounded by some 70 log-houses, where principally *Pend d'Oreille* Indians dwell and cultivate the soil in the surrounding valley. The Mission Valley is a very broad and fertile plain, well watered by streams which flow from the ranges of mountains that rise on both sides of the valley, and from the mission to the Flathead Lake and around its borders there is farming-land sufficient for thousands of settlers. Along the plain from the mission to the foot of the Flathead Lake, a distance of some 30 miles, are scattered Indian farms and habitations.

FLATHEAD LAKE.

This beautiful sheet of water is some 28 miles in length and has an average width of 10 miles. Around the foot of the lake and amid the most delightful scenes that the mind can well picture is grouped another Indian settlement, where houses and crops give every evidence of thrift.

Crossing the lake by canoe or boat, and following a northeasterly direction to Dayton Creek, you will find the homes of the *Kootenays*, living mostly in lodges; but this spring they have commenced the erection of a few houses. The *Kootenays* live chiefly by hunting and fishing. A large prairie in the vicinity of their village furnishes them with camas and bitter-root, which they dig and dry in the spring for winter use. In brief, it is hardly possible in any country to surpass the natural resources of the Jocko Reservation as to agriculture, grazing, timber, and water-power. The fishing is excellent in all the rivers, lakes, and mountain streams, and the hunting is good in the surrounding country.

THE CROPS.

We are now in the midst of harvest, and although the grasshoppers made sad havoc among some of the Indian fields, particularly the oat crop, we will have a good yield of wheat, and among the thrifty class who remained away from the chase and gave attention to the cultivation of their farms there will be an abundance. Much attention was paid by the Indians to the cultivation of small vegetable gardens this season, with very good result.

Although the Indians have large bands of horses and cattle, they pay very little attention to the curing of hay, giving as a reason that there is no necessity to provide hay or shelter for stock, as the winters are too mild to require it. I very much fear, however, that an unusually cold winter may yet find them unprovided and occasion great loss. To guard against this to some extent I intend to see that all the straw from the crops is carefully stacked.

BUILDING.

This year some good, substantial houses have been erected by the Indians, and lumber and shingles from the mill have been in great demand. The Indians cut and haul their own logs to the mill, and the agency miller saws them into lumber to suit their convenience. Several more houses would have been erected by the *Kootenays* but for the fact that the mill is some 60 miles distant from their village, and there are but three wagons in the tribe with which to do their hauling and farming. The chief of the *Kootenays* is doing all in his power to induce his people to follow the thrifty habits of the generality of the Flatheads and *Pend d'Oreilles*, and from his own private means has purchased for the use of his tribe a combined mowing and reaping machine, a set of carpenter tools, also, a set of blacksmith tools. I would again urge the necessity of encouraging these people by assisting them with agricultural implements, wagons and harness, as well as the needy of the other two tribes.

CRIME.

But very little crime of any description can be charged to the Indians of this reservation. The missionary work performed by the fathers of Saint Ignatius Mission has its salutary effect upon the Indians, keeping them in wholesome restraint, guarding their morals, and gradually leading them to the pursuit of happiness through sturdy toil, morality, and self-dependence. The tribal laws and the law of religion forbid polygamy and adultery among these people, and in my opinion it would be hard to find a community of the same number, even among christianized civilization, where as few of these crimes are in practice. Of course there are some uncontrollable characters of both sexes, who visit the neighboring towns, and through the demoralizing effects of whisky cause disgrace to themselves and scandal to the tribes.

AT HOME.

The Indians, with the exception of a very few, are now at home, and I am doing all in my power to keep them there. The chiefs are lending me all the aid they can to accomplish this, and doing all in their power to keep their people out of trouble.

The excitement of the past few months, caused by the Bannack war, and the murders

committed by the Nez Percés in close proximity to this reservation, has given me a great deal of anxiety, fearing that the settlers or military might mistake these people for hostiles, and by attacking them plunge the tribes into war. But every precaution having been taken to gather the Indians home and to warn them of their danger, I feel that all danger is past. The chiefs fear that the hostiles may commit murder on the reservation or in some of the neighboring settlements, which may be attributed to their people and hastily acted upon by the whites and cause trouble.

THE BOARDING SCHOOL,

under the charge of the Sisters of Charity, is in a flourishing condition, and is an excellent institution of learning for girls, and the pupils are making excellent progress in the common English branches. A large number of them can read and write the English language understandingly, and work in the first four rules of arithmetic. Singing and music are also taught, the Indian girls forming the choir in the Catholic church for Sunday service; also, house-keeping generally is taught, viz, washing of clothes, floors, &c., baking, cooking, ironing, sewing, and mending of clothes, quilting, knitting, laundry work, &c. As far as the education of the girls is concerned, the school is a success; but the education of boys cannot be successfully accomplished without the establishment of an industrial and agricultural boarding school, compelling attendance. I very much question the policy of day schools for Indian boys, as it has been tried at the mission for years with very indifferent success. The chiefs and headmen are very anxious to educate their boys, and I am constantly referred to the fifth article of the treaty and asked why it is not complied with, in regard to the establishment of an industrial school, and I can only echo—why?

THE SANITARY CONDITION OF THE INDIANS

for the year has been very good until about the first of the present month, when the weather set in intensely hot, causing a great deal of sickness. The physician is in constant employment, and reports that few cases have proved fatal so far.

THE GRIST-MILL

has but one set of burrs, and is kept almost constantly employed in grinding Indian wheat. Last year the unprecedented amount of nine thousand bushels of wheat was made into flour, the product of Indian toil and thrift on the Jocko Reservation.

Very respectfully, your obedient servant,

PETER RONAN,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

FORT PECK INDIAN AGENCY,
Poplar River, Montana, August 17, 1878.

SIR: In accordance with directions conveyed to me in your circular-letter of the first of July, 1878, I have the honor to submit to you this my second annual report.

At the period of my last annual report the agency occupied the old location at Fort Peck and a more recent one at Wolf Point, the former occupied by the *Yanktonai* and the latter by the *Assinaboine* Indians.

NUMBER OF INDIANS.

The number of these Indians as near as I have been able to ascertain is 3,780 *Yanktonais* and 1,615 *Assinaboines*. I do not regard this statement as absolutely accurate. The estimate is based on the ration tickets issued, and I find a most persistent disposition among all of the Indians to exaggerate when giving the number of their family for which to receive rations, but it is as near, probably, as can be obtained until they live in more permanent habitations. Those given as *Yanktonais* embrace quite a large number of *Uncapapas*, *Tetons*, and other bands of *Sioux*. A contract was let on the 18th of August, 1877, for the erection of

NEW AGENCY BUILDINGS,

at or near the mouth of Poplar River, which contract was filled and the buildings erected, so that on the 18th of October last I removed the agency stores from Fort Peck and took possession of the new buildings at Poplar River. These buildings were all constructed of pine lumber, viz: Agent's house, 38 by 40 feet, two stories high; a store-house, 33 by 100 feet, also two stories high; a barn, 24 by 72 feet; and a slaughter-house, 20 by 40 feet. Since taking possession of the new location, I found the slaughter-house erected there entirely too near the agent's residence, less than 200 feet distant from it, and therefore had it moved out into a line, fronting the

river, with the other agency buildings, and remodeled by a new floor, weather-boards, and ceiling, so as to make a very comfortable and commodious school-house, while a slaughter-house and corral have been constructed of logs on the bank of Poplar River, half a mile distant. An eave-trough and conductor has also been put on the agent's house, and a cistern of brick and cement, of 200 barrels' capacity, constructed, which will add greatly to the conveniences of the agency, as without it water for household purposes is hauled by wagons from the river. This

INDIAN RESERVATION,

as I stated last year, has within its boundaries a large portion of very excellent farming and grazing land, the best of which is found between Fort Buford and the mouth of Milk River. The location of the agency at Fort Peck was unfortunate, from the fact that no available farm-land is found within ten or twelve miles of that locality, and consequently no effort at farming was ever attempted there. At Wolf Point some land was broken up some three or four years ago, and the Assinaboine Indians taken there. This year near a hundred acres are planted there, and about 30 acres of new broken land at Poplar River, both in corn and potatoes, which promise very satisfactory returns, resulting from thorough cultivation and the abundant summer rains which have fallen here during June and July.

Poplar River, the future seat of the agency, has a beautiful location on an elevated plateau, some 30 feet above the general level of the bottom-land, and is surrounded by a splendid body of fertile land. Here I have had nearly a thousand acres of farm-land inclosed by a post and board fence, $2\frac{1}{2}$ miles in length, with the aid of Poplar River and the Missouri, which are used as boundaries of the farm on two sides. On this tract near 200 acres of land have been broken up in May and June for cultivation next year. The reservation has been changed since last year by running a line north and south on the one hundred and ninth meridian. This line crosses the Missouri River above Carroll, leaving all the best part of Milk River Valley within its boundaries. The experience of the last year at Wolf Point and Poplar River proves that nearly all the land between Milk River and Fort Buford is susceptible of cultivation. Even the upland at Poplar River, under the influence of the abundant rains of June and July, has proven to be very fertile and productive.

INDIAN FARMING AND INDIAN SUPPORT.

If the experiences of the last three years can be relied on in the future, we have within the boundaries of his Indian reservation a very fertile and productive soil, where potatoes may be grown in great abundance and in their highest perfection. They prove, also, that what is known here as the Ree corn will grow and mature a very satisfactory crop for the support of the Indians, and that the natural grasses of the country will support immense herds of cattle winter and summer. This last statement will be better understood when I say that 400 beef-cattle were driven 500 miles over this reservation in January last, with no feed but what they obtained from the dry grass over which they passed on their way, and arrived here better beef than when they started from Sun River, in Montana, about Christmas. But then the question comes up, with all these possibilities, can the Indians ever be induced to become a settled, permanent community, live in permanent homes, and avail themselves of their rich land and pasturage? A few may; but while the buffalo remain abundant as now, roaming over the reservation, I fear little can be hoped for from many of these Indians where any labor is required of them. They have been so long accustomed to this idle, lazy, and nomadic life that nothing short of dire necessity will impel them to a life of labor and toil. It is not certain that white men, under the same circumstances, would do better.

At Wolf Point the most progress has been made by the Indians in farm work. A few have worked there at plowing and other farm work. Long Fox has, with the assistance of the agency employes, built a very comfortable double log house, has planted a crop of corn and potatoes, has cut wood for the steamboats, and altogether made a very decided, satisfactory, and intelligent start toward independence. One or two others, under the stimulus of his example, are making preparation to follow in his course, and there will be, without doubt, a number of the Assinaboines who will this fall and winter build houses and take up and plow land for crops next spring.

At Poplar River a number of Indians talk about farming and building houses, but so far little farm work or any other kind of work has been done by the Indians, except that done by the Indian women. I have made efforts to employ the men by offering regular pay in money, but with very barren success so far; with hardly an exception, more work can be got from the Indians here, either men or women, by paying a liberal allowance of sugar at night than the offer of any reasonable pay in money.

PERMANENT INDIAN HOMES.

I have before stated, and now repeat, that I can see no hope for any permanent good to these Indians but to in some way induce them to live in houses where they will

have a permanent home for the family. My plan would be to procure for them lumber for floors, and roofs, and windows, and doors for their houses, and then offer these, with assistance to erect their houses, if they will get out and haul the logs. I know a great many would avail themselves of this offer, and everything in their future, both in farming and the support of the schools, depends upon their occupancy of permanent houses and homes.

AMMUNITION AND INDIAN HOSTILITY.

Last fall I made an application for a permit by which the agency Indians could legally be supplied with a limited amount of ammunition for hunting purposes. This request was granted by the Secretary of War, and consequently the Indians were much pleased; but in less than a month this permission was withdrawn for some reason, and the Indians have never ceased complaining of the hardship of their situation. They cannot understand it. They say they are loyal and law-abiding; that they have agreed to be and are friends to the whites, and yet hostile Indians on their northern border are roaming over their reservation with all the ammunition they need, and they, friendly agency Indians, are deprived the poor privilege of even buying powder and ball with which to kill their game. Of course there are many things connected with this question of ammunition and Indian hostility that the Indians cannot understand, and yet it does seem that there is something about this question of ammunition that is inconsistent. I am entirely confident that these agency Indians at Wolf Point and Poplar River intend to be true to the government and the Great Father. They have not the most remote idea of being otherwise.

In April last I found the supplies at the agency for the support of the Indians nearly exhausted, with no prospect of any arriving for at least three months. I not only permitted but advised the Indians to go out to the buffalo country (within the reservation, however). They had not been out a week until thirty or forty families returned with the report that their horses had been stolen. This stealing was at first attributed by our Indians to the Crow Indians, their hereditary enemies, but was afterward found to have been perpetrated by White Dog, an Assinaboine, with a small band with him, and this ultimately led to the hostile encounter between some Yanktonais and Gros Ventres and Assinaboines near Fort Belknap in June last. This affair, as I know very well, grew out of a difficulty that originated last fall in the murder of an Assinaboine boy about twelve years old. The father, White Shell, and his kinsman, White Dog, charged the murder on the Yanktonais without a particle of evidence that I could ever ascertain, and I investigated the matter very thoroughly at the time. Several chiefs of the Yanktons made a present of a horse or two and blankets to White Shell, and the matter was supposed to be settled; but White Shell, the father of the murdered boy, is a weak, vacillating Indian, and under the influence of White Dog, who is one of those dreamers—medicine Indians—who are always pretending spiritual guidance, kept threatening retaliation on the Yanktons all winter until they got tired of it, and several of them told me if White Shell did not stop his threats of retaliation there would be a big fight yet. This spring White Shell with White Dog and some other Indians went up to Belknap from Wolf Point, and there they were the instigators of the fight that occurred, as I have good reason to know from several Indians who were present. They say the Gros Ventres and Assinaboines came out to the vicinity of the Yanktonai hunting camp, and that several of the leading Yanktonai chiefs, like Black Catfish, Black Tiger, and Thundering Bull, harangued the camp and told them that only trouble could come to them from any hostile encounter, but they were overruled by a few hot-headed chiefs and the attack was made by the Yanktonais, which they admit, but not being sustained by the bulk of their band, and the other party being much the best armed and supplied with ammunition, they soon got the worst of it and speedily drew off with three killed and four wounded, with four or five horses killed. I have since learned that White Dog desired to get more ammunition to attack the Yanktons again, but was of course refused. Any attempt to induce the building of a military post as a protection against hostile attacks from any of the Fort Peck Agency Indians would be a loss of time and material, for I verily believe there are no more quiet and law-abiding Indians on the frontier than those at this agency, and require as little military force to keep them in order. The question of

INDIAN CHIEFS

is one not easily managed. Among the Assinaboines at Wolf Point, Eoshon or Red-Stone is the recognized chief; all the Indians there concede to him the right of chieftainship in their tribe. But among the Indians making up the agency Indians now at Poplar River no chief is recognized as head. Medicine Bear was at one time regarded as the highest in authority, but he is getting old and of no influence in the tribe. In the camp, at present made up of near 600 lodges or families, there are over 50 chiefs, and no one is claiming over about 20 lodges: from this number down to half a dozen. At present the biggest chief seems to be the one who can secure the largest amount of annuity goods or rations, and new chiefs I find are made by obtaining a

few adherent lodges from other chiefs, by purchase or otherwise, and straightway the Indian is a chief; or, some Indian will get hold of some old letter of recommendation from a military officer or Indian agent, and he sets up for a chief on the authority of his chief papers as he calls them. The credulity and ignorance of these Indians are past belief. It is no wonder that they are continually made the dupes of traders and other white men who come among them.

AGENCY SCHOOLS.

I assumed charge of this agency with strong convictions of the importance of properly organized schools for the Indians, and have availed myself of every means and opportunity accessible to me to promote them and their efficiency, but with all, the results have not been satisfactory, to myself certainly. I found a school-room at Wolf Point in the end of a log building, about 24 feet square, in which were a few dilapidated benches and a pine-board table, but with few appliances or books, except some first spellers, readers, and arithmetics, that had undergone the inundation at Fort Peck in the spring of 1877. A school was opened in the room at Wolf Point on the 1st of October by P. O. Matthews, who has been faithful in his endeavors to promote the success of the school, but owing to the unsettled condition of the Indian camp, living, as nearly all do, in cloth and skin tepees, and moving camp every three or four weeks when not out in the buffalo range, the attendance is very irregular. Add to this the general indifference of most of the parents. I find it is almost impossible to get an attendance at the school of more than half a dozen three days in succession without some inducement in the way of a lunch or something for the children to eat at noon. The recent instructions of the honorable Commissioner of Indian Affairs come very opportune, to my opinion, to meet this difficulty. With a place to furnish the rations to the children, and a teacher who will take the proper interest in it, much good will result in promoting the efficiency of the schools by adopting his plan for issuing rations to school children. The Indian children with hardly an exception learn to sing very readily, and it is really pleasing to be at Wolf Point and hear the Indian children, as one can any evening around the camp, sing "Hold the Fort," "Climbing Zion's Hill," and other Sunday-school songs the children have learned at school.

At Poplar River no room for a school could be obtained until I reconstructed, as already stated, the slaughter-house there, and made of it a very pleasant school-house. Here a school was opened on the 4th of July by Miss Mary Ogle, of Indiana. The hot weather and mosquitoes of July and August have sadly interfered with our school. But a small portion of the Yanktonai camp has been at Poplar River through the summer, but enough of the children constantly there to form a large school, of which I have good hopes of effecting something satisfactory this coming fall and winter.

SANITARY.

The health of the Indians for the year has generally been good. No epidemic has prevailed. In the winter coughs were somewhat prevalent at times, but less so, I think, than in an ordinary community of white people. In an experience of nearly forty years I have never seen a community of people among whom the pursuit of anything like a regular systematic course of medical practice was so difficult. Ordinarily, unless a single dose produces some salutary or satisfactory results, a second dose is not taken. A bottle of cough sirup, when not too bitter, is usually taken up in a very few doses, and a bottle of liniment, to be applied externally, will be assiduously applied until all is used up. But no course of practice can be pursued with the Indians for the same reason that schools will be inefficient, viz, want of permanent homes or houses where the habits and customs of a settled community are adopted.

WILD GAME.

Deer, antelope, and elk still continue in considerable abundance to roam over this Indian reservation, and the number of buffalo have seemed to increase; certainly they have not been so numerous before within the near vicinity of the agency at both Wolf Point and Poplar River as they have this summer. Five buffalo were killed within three miles of the agency building at Poplar River on the 15th of August, and thousands of them are now roaming in the valley of Poplar River, within 40 miles. It is difficult to ascertain in what direction they are generally tending. For the present they furnish a convenient source of supply for agency beef. Without the supply of buffalo beef obtained during the year the rations furnished by government would have been sadly deficient and the deficiency felt.

UNITED STATES INDIAN POLICE SERVICE.

The rules and regulations for the United States Indian police service, recently issued by the honorable Commissioner of Indian Affairs, if carried out fairly, seem to me well adapted to the wants of the Fort Peck Indian Agency. A company of ten Indians, with one captain and two sergeants, with P. O. Matthews as chief of police, have been formed, and their names forwarded to the department for their commissions. I have

faith that this Indian police force can be made an efficient agent in keeping peace and order on the reservation.

I am, very respectfully, your obedient servant,

W. BIRD,

United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

GREAT NEMAHA AGENCY,
Nohart, Nebraska, August 24, 1878.

SIR: In accordance with instructions, the following is submitted as the annual report for the *Iowa* and *Sac and Fox of the Missouri* tribes of Indians. These are two small tribes located upon contiguous reservations situated in Richardson County, Nebraska, and Brown and Doniphan Counties, Kansas.

IOWAS.

Whole number, 213; births, 11; deaths, 11. They live in houses furnished with the conveniences usually found in the homes of the ordinary white settlers. Three of the Iowa families have their floors carpeted, the rugs therefor having been prepared by their own hands. Five families have sewing-machines. One widow woman does considerable sewing for whites residing near.

Every family who has the means of cultivating it has a fenced field or farm, which they attend in a creditable manner. Five Indians have farms containing from 50 to 160 acres each, the most of which they have under cultivation. About 200 acres have been fenced the present season. They have planted 1,160 fruit-trees and 260 grape-vines. A previous year 440 trees and 40 grape-vines were planted. A few trees were planted several years since from which some are now gathering fruit. One Indian will realize 12 bushels peaches, having already sold the product of one tree, 3 bushels. These trees were purchased from profits of the trading-post, which is under the supervision of members of the religious society having charge of the agency, and donated to the Indians. A little orchard, nicely fenced and cared for, may be seen surrounding many of the residences at this time.

Four wells have been bored for as many Indian families, at a total cost of \$160.40, the Indian having the well paying three-fourths of the cost, the other one-fourth being paid in the same manner the trees were purchased.

Five houses, three log and two frame, have been built. For the log-houses the Indians prepared the logs and raised the houses to the "square." For the frame-houses the Indians furnished in cash, one \$25, the other \$40, besides doing all the hauling and assisting mechanics in construction. These are comfortable story-and-a-half houses, with one good room on the second floor, all well plastered. Three other houses previously erected were also plastered the present year. There may be noticed an apparent discrepancy in the accompanying statistics in reference to the number of houses occupied by Indians when compared with last year's report. This can be explained by stating that three houses that had become untenable were torn down and new ones erected instead.

Evidences of gradual improvement are discernible each year among these people, and it needs only a continuation of the present policy of making labor a necessity, to make the Iowas wholly self-supporting in a few years. Their annuities are of a permanent character, and should be used for purposes of education and general improvement instead of making large payments in cash. Most undoubtedly the true policy is to furnish Indians means wherewith to till the soil, purchased from the funds of the tribe if they are adequate, and give them to understand that they must be used if they expect to obtain the comforts or even the necessities of life, for certainly they have not a sufficient claim upon the generosity of the government to be supported in idleness by the regular issue of rations. No rations are issued to the Indians at this agency, which is the better plan where they have reached this advanced condition.

One industrial or manual-labor school is conducted for the Iowas, and is well patronized. Of 52 children of school-going ages 51 have attended school. The largest monthly average was 40; average for the whole year, 32. Eighty acres of land, fenced and under cultivation, is attached to the school and cultivated as the school-farm, producing all the wheat, corn, vegetables, pork, &c., needed for the subsistence of the children. A large part of the beef required is also produced. The Indians assist in the cultivation of this farm when required in addition to the labor performed by the school-boys. The girls are taught the various household industries, such as cooking, baking, washing, cutting and making garments for themselves and the boys, &c. In addition to the ordinary school exercises, a juvenile lyceum is conducted during the winter evenings for the instruction and entertainment of the school-children; exercises consist of read-

ing, singing, recitations, dialogues, charades, tableaux, &c. Some of the Indian parents attend and participate. One Indian boy has been sent to a neighboring university to be educated from a charity fund.

SACS AND FOXES OF THE MISSOURI.

Whole number, 107; births, 9; deaths, 8. The condition of this tribe is very different from that of the Iowas, but little in the way of improvement having been done until three years ago. Previous to that time their funds were paid to them wholly in cash, making a per capita payment of almost \$100 annually. The first step from this stereotyped practice was made by obtaining the consent of the tribe for the diversion of \$2,000 for beneficial purposes. Subsequently its consent for the use of \$2,000 annually for education and general beneficial purposes was obtained. There seemed formerly to be an idea that the funds of this tribe could only be used with its consent, but this is erroneous as regards a large part of their trust-fund interest, it being like the Iowas' funds, subject to the discretion of the President.

Six families only live in houses, except rude ones of their own construction. Three of the five houses were built from material purchased by the individuals. Considerable improvement in the way of agriculture has also been made, and a great improvement the present year over last. Timber for fencing being about exhausted, about 2,000 rods barbed fence-wire was purchased for them, nearly all of which has been used. Several Indians who never before did any work have fenced and cultivated small fields. One hundred and thirty acres are being cultivated in grain by Indians, and 323 acres by a white man married into and a member of the tribe.

A comfortable log and frame house, nearly new, belonging to an Indian, was recently completely destroyed by a cyclone or hurricane.

One boarding-school is in successful operation, and has been patronized rather better than heretofore, thirteen of sixteen children of school-going ages being in regular attendance.

The members of this tribe have a restless and unsettled disposition, frequently insisting upon removal to the Indian Territory, their requests receiving no notice from the department; hence they remain in suspense, still in the hope of hearing something to their interest, while matters remain *in statu quo*, to the great annoyance of all parties. If it is the policy of the department to discontinue the removal of Indians to the Indian Territory, it would certainly be the better plan to state so to these applicants in plain and decided terms.

CONCLUSION.

It is the policy of the present agent to impress upon the Indians the fact that their subsistence must soon be wholly the product of their own labor, and to disabuse their minds of the idea that the government owes them a living so long as they may see fit to ask it.

The Iowas especially are sufficiently advanced to have their lands allotted to them in severalty, granting them a title therefor inalienable for a number of years. This would be a new incentive to exertion, as they would then have some assurance that what improvement they make would be their individual gain.

Recommendations of last year are repeated: 1st. Prohibition of tribal visiting. 2d. Enactment of laws protecting Indians in their individual rights with respect to person and property. 3d. Laws for the effectual expulsion of all persons being illegally upon the reservation. 4th. The discontinuance of general legislation for Indian tribes. The regulations required for wild tribes which have made but little advancement from their primitive condition are detrimental to the interests of the semi-civilized. * * *

In closing this my fourth and last annual report, I believe it proper to refer to the new rule of grading salaries of Indian agents according to the number of Indians in charge as a great error in judgment, and as working much injustice to those engaged in this service. The care, oversight, and responsibility of a small tribe having made considerable improvement, is greater than that of a large tribe in their primitive condition, where but little attention except the regular issue of rations is required. Where two or more tribes, though small, are attached to one agency, the labor is increased in proportion to the number of tribes, as they are usually located considerable distance from each other and from the agency. Under the present policy, it seems to be expected that an Indian agent with large financial and moral accountability can give up all the advantages of society, as it were, isolate his family and himself from the social world, be prohibited from having the association of his relatives in the service, as well as being compelled to forego many of the real comforts of life, and receive as a compensation but little more than half the amount paid to many mere clerks in the office at Washington. A free and unbiased consideration of this policy cannot fail to show its injustice.

Very respectfully,

M. B. KENT,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

OMAHA AGENCY, NEBR.,

Seventhmonth 29, 1878.

RESPECTED FRIEND: In compliance with directions contained in letter of Seventh-month 1, I submit my second annual report of the state of affairs at this agency during the past year.

Last year's crops were generally good, the wheat crop exceeding my estimate by 3,000 bushels, and amounting to more than 12,000 bushels of excellent quality. Their success last year in wheat-growing encouraged the Indians to increased efforts the present year, and they increased the average of wheat sown about 75 per cent., or a total of near 1,050 acres. I estimate the present crop at 21,000 bushels. Frequent rains, succeeded by intense heat, have produced somewhat unseasonable ripening, which may diminish the yield to some extent. I think there is no increase in the number of acres planted in corn, but the cultivation has been much better than heretofore, and I estimate an increase of 5,000 to 6,000 bushels in production above last year. Some increase in oats and potatoes; other crops about the same as last year. There is a perceptible advancement in many of the Indians in judgment and skill in the management of their farm-work. They hauled near 500 logs to the mill during the winter to be sawed into lumber for building and fencing purposes, and have broken about 450 acres of prairie this summer, against 250 acres last year. A number of their young men have taken claims and made breakings this summer.

Intelligence is increasing among them in a progressive degree, and many of them are looking forward with interest to their individual improvement, and their general advancement toward civilization, by the abandonment of their tribal relations and aboriginal customs. The more intelligent Indians foresee the necessity as well as the advantage of such a course, and evince an earnest anxiety for its consummation. The chiefs are reluctant to yield their positions and influence over their followers, and are, consequently, an obstacle to the advancement of the tribe in civilized customs. There is a strong and increasing disposition on the part of the more intelligent and thrifty members of the tribe in favor of abolishing the chieftainships.

The Indians supported the schools well the past year, manifesting an interest in their children learning the English language. Some of them visited the schools frequently, and expressed satisfaction at witnessing the recitations of their children. The school-children were pretty well furnished with clothing, and, for the first time, with shoes and boots, with which they and their parents appear well pleased, and, I believe, the influence was salutary.

I hear of no cases of intemperance among the *Omahas*, and they appear to take some credit to themselves for their abstinent habits. Liquor-drinking is generally discountenanced by the tribe. They are disposed to remain on the reservation and work for themselves instead of rambling about, which, I believe, is one of the chief safeguards against intemperance and indolence. I am convinced that if they are allowed to remain undisturbed in their just rights on their reservation under the present civil policy, with such improvements as experience may suggest, with reasonable opportunities afforded them for the development of their own energies and resources, accompanied by simple and wholesome laws for their government, in a few years the greater part of them will render satisfactory evidence that Indians can be civilized.

The frequent changes in the treatment and modes of managing and governing the Indians are derogatory to their progress in civilization and self-reliance. They tend to unsettle and discourage them from making the effort to improve their present homes that many of them would feel more interested in making if they could be fully assured that they were to remain their own, and that they were working for themselves and their children. They say that they have been faithful on their part in complying with their promises and obligations to the government, and intend to continue to be so, and they ask a reciprocal compliance on the part of the government with its promises and treaties with them. They are often disturbed by rumors and probabilities of changes, either of their homes or their management, and they feel that either would be great injustice, especially without their free and unenforced consent. They are quick to discriminate between justice and injustice; and they say they want to live in undisturbed peace on their own rightful possessions, and in friendship with their white neighbors, which is certainly asking no more than a generous and just humanity would accord to them.

Very respectfully,

The COMMISSIONER OF INDIAN AFFAIRS.

JACOB VORE,

United States Indian Agent.

OTOE AGENCY, NEBR.,

Eighthmonth 24, 1878.

RESPECTED FRIEND: In compliance with instructions and in conformity to department regulations, I have the pleasure to hereby present my sixth annual report of the condition of the Indian service at Otoe Agency, Nebr.

The past few years, commencing shortly after my taking charge of the agency in 1873, has been an important period in the history of the *Otoe and Missouri* tribe. It has been the turning point between the wild, free life so dear to the memories and traditions of the Indian race, and the more complicated machinery of civilized pursuits, which in the near future they must wield, or by inaction suffer decay and lose their identity amid the growing populace of a more provident race. Previous to that time, game within comparatively easy access was abundant, and the fruits of the semi-annual hunt, supplemented by an intervening cash annuity, seemed to supply their necessities. Productive industry was not recognized as an important means of support, and had not gained an established footing among them. The disappearance of game from their old hunting-grounds, and a change in the governmental policy toward Indians, which, though gradual, has been none the less sensibly felt to be each year growing more stringent as it approaches more nearly the principles of common business transactions, rendered a change in their habits an absolute necessity.

Their reservation being located in the valley of the Big Blue River, on the State line between Kansas and Nebraska, is in one of the finest tracts of farming and grazing country west of the Missouri River, which renders agricultural pursuits their most available means of self-support, and which it has been my aim to develop on a substantial basis.

There have been a few worthy individual exceptions, but the Indians, as a tribe, have been very slow in accepting the necessity of getting their living from the soil, and have regarded as a great injustice the means employed by government—that of using their annuities, which they had been accustomed to receive in cash, for the development of agriculture and other industries. Consequently, each step has been resolutely contested. Much strategy has been resorted to in order to avoid a compliance, and many plans adduced in order to escape the inevitable change which they saw hanging over them. The most potent among these was that of a removal of the tribe to a new home, where they could have access to buffalo and the hospitality of other tribes. This being also a favorite theme among the surrounding settlers, in order to get possession of the Indians' lands, their advice has been highly prejudicial to the interests of the Indians, and a frequently-repeated agitation of the subject has presented a formidable obstacle to improvement—so great that the personal safety of any one who so far disregarded the will of the old potentates of the tribe as to break prairie for themselves could not be assured. An altercation that grew out of one prominent Indian breaking a field for himself in 1874 resulted in his killing his friend, who taunted him with ridicule for his attempt to adopt the ways of white men, and threatened a serious conflict in the tribe. Under such circumstances, improvement has been attended with many difficulties, and has of necessity been slow; but under the one purpose steadily pursued at the agency it has been measurably sure, and in summing up the results of five years' labor the present condition is gratifying, and presents a hope of brighter promise in the future.

While, from the opposition in the tribe, and the want of implements to work with, it was found almost impossible to start the Indians on individual farms, a system of tribal farming was commenced wherein the Indians were induced to do the work, under the direction of a practical farmer, and were paid a *per diem* for their labor out of tribal funds, the proceeds reverting back to the tribe, and were issued to the Indians in the shape of rations as necessities required. By this means the amount of labor performed was limited only by the amount of means at command to employ it; nearly all the able-bodied male members of the tribe have participated. Many, especially among the younger portion, have become skillful laborers; five to six hundred acres have been brought into successful cultivation, a larger quantity inclosed with fence in different inclosures, wholly by Indian labor, and the crops of last year were sufficient to bread the tribe until the cutting of the recent harvest.

A larger acreage of wheat was sown the present season than last year, but the yield it is believed will be much less, owing to the ravages of the chinch-bugs and the great amount of rain, which destroyed and prevented gathering a considerable portion of the crop. The corn and other crops now in growth and nearing maturity are quite promising.

Our experience, so far as members of this tribe is concerned, has demonstrated the fact that Indians may become successful laborers; that the same incentives which induce white men to labor will also induce Indians, viz, necessity and a direct personal interest in their labor. That all efforts to induce Indians as well as unenlightened white men to toil without such interest must fail, or at best be successful only to a limited extent, and that Indians uneducated in the customs and industrial pursuits of civilized life are slow to see the benefit or to perform labor wherein they must anticipate their reward two or more years hence, as is the case in opening farms, and especially is this the case where they can have no assurance that they can continue in possession of the land whereon they bestow their labor.

In connection with the above I may add the remark that it is believed to be of the utmost importance, in order to advance the Indians in industrial pursuits, that their homes be secured to them by law in such manner that they cannot be taken from them

nor the Indians removed, not even by their own request, until such time as they may give evidence of being fully competent to exercise the rights of a free citizenship in the management of their own affairs, and be prepared to pass from under the special care of the government; and of this the Indians should be assured in such manner as to admit of no equivocation. It is unnatural to expect of them a satisfactory development of home interests while their lands are subject to the whims and speculation of a dominant race, or their place of abode to the caprice of fancy ungoverned by intelligent business considerations or associated domestic economy.

The system of tribal farming commenced and continued at this agency since 1873 has been pursued for the purpose of educating the Indians in agricultural labor, so as to prepare them for the management of individual farms as much as for the profits in farm products, and in which, although maintained under opposition, we have had success. In 1875 a few Indians broke small pieces of prairie on their own account. The spring following the same was sown with wheat, but being unprotected from the herds of Indian ponies it was mostly destroyed and but little was harvested. Last year but two Indians sowed with wheat, and they harvested a remunerative crop of about 200 bushels, the most of which was sold at the market rates of about 85 to 90 cents, and the proceeds expended by the producer for furniture and other family supplies. The effect of these examples has been highly gratifying, and last spring fifteen Indians sowed individual patches of wheat, aggregating about 75 acres, which they now have harvested and in stacks ready to be thrashed, and will yield probably 500 bushels or more. The disposition to open farms has also been much more general the present season than any previous year. About twenty commenced breaking prairie on individual claims; they broke an aggregate of near 150 acres, and the feeling is now very general among the conservative portion of the tribe in favor of individual farming, and of raising wheat and other crops, needing only to be properly encouraged and assisted to make these Indians self-supporting by the products of their own farms. Tribal farming by paid Indian labor, under the direction of the agency, has proved a success, both by gaining subsistence for the tribe and approximately preparing the Indians by a degree of agricultural education for commencing on their own account; but its continuance is not recommended longer than until the Indians become sufficiently established, and have the means of operating for themselves. This point is yet far from being reached by many of the Otoes.

Most of the Indians who have commenced opening farms have left the village and constructed habitations near their land; a very few have comfortable houses, the greater number having only bark houses and earth-covered wigwams. Many of these are very desirous of having better accommodations, but timber suitable for building purposes has nearly all been destroyed, and they cannot be supplied with houses without considerable outlay for material, and this the limited funds of the tribe will not justify.

It was hoped by selling 120,000 acres of the reservation, as provided by a bill enacted for the purpose in 1876, that sufficient would have been realized from the sale before this time to place the tribe on a comfortable footing, financially, and to pay for many needed improvements. But, as is often the case, where the property of Indians is at stake, through a lameness in the law, or a misinterpretation of its provisions, the Indians have realized nothing from the intended sale. While at the same time the larger part of the land is occupied by squatters; towns have been planted, villages are growing up, and the mart of trade has been opened upon it, yet but few, comparatively, have signified any intention of paying for the lands they occupy, and those who would be purchasers are debarred by such occupancy. It is believed the provisions of the bill are sufficient to justify a ruling by the proper authorities that would compel a compliance with the terms of sale, or eject the unlawful occupants from the land. If such should not be the case, an amendment to cover the deficiency should be made as speedily as possible.

An element exists in the tribe, consisting of about one-fourth its members, under the leadership of former chiefs, who refuse to comply with the provisions of law, requiring Indians to perform service for their annuities and supplies. They oppose all improvements, holding resolutely to their Indian customs and traditions, and discard agency restraint, refusing all supplies because they are offered to them by measurement and weight to the heads of families, instead of in bulk to the heads of the tribe. They are the dupes of bad advisers outside the reservation, being led into the belief that the present arrangements and restrictions are by the agent only; that by a non-acceptance their annuities are accumulating in the hands of the government; that they cannot be expended without their consent, and will eventually have to be given them, in cash, and that the days of Indian prosperity, as of old, will again return to them.

THE AGENCY HERD.

In 1875 a herd of cattle of various ages was purchased for the purpose of converting a portion of the rich grass abounding on the reserve into wholesome beef for subsist-

ence of the Indians, and to demonstrate to them the advantages of stock-raising. The first two years the experiment was attended with many discouragements, owing to the herd being of insufficient size to furnish a continual supply of beef, and the Indians, not being reliable herders, animals would frequently disappear, especially young calves, and in 1876 but few were saved. Many cattle were also lost in storms, and the Indians, taking advantage of those in a weak condition, would place them in a position where they would perish, in order to get the carcass. This practice prevailed to such an extent that it was found necessary at one time to have the cattle herded away from the agency in order to save them. During the past year the Indians, having been brought to see their previous folly, entered into an agreement to save the cattle, and a police was appointed to look after offenders. I am now pleased to be able to say, we have experienced but little trouble in that direction during the past year. A regular herder was dispensed with, and the herd is now kept at the agency, is herded by Indians irregularly employed for the purpose. No cattle, to my knowledge, were lost by death the past winter. They are now in fine condition, and the number has been nearly doubled the present summer, partly by purchase, but most largely by natural increase. The calves are doing well, and out of about eighty not more than two have been lost. The herd now numbers about 275, including young calves. It should be increased to about 600 head, which, if properly managed, would furnish a satisfactory supply of beef to the tribe the year round without a decrease in number and without expense, except that of taking care of the cattle, grass for pasture and hay being abundant.

SCHOOLS.

An industrial school was organized in 1875, a commodious building having been previously constructed for its accommodation, the erection of which met with much opposition from the Indians and was taken advantage of by unscrupulous white men, who by seditious advice did much to prejudice the Indians against the school. Although organized under unfavorable circumstances, it was steadily maintained and grew from year to year in interest and favor with the tribe. In consideration of the opposition no arrangements could be made with the tribe to secure attendance except at the option of the Indians, hence our hold on the children has at all times been insecure. Yet by kind treatment and the comfortable accommodations afforded, the school has been patronized by many, and a few parents, seeming to appreciate the advantages of education, have kept their children steadily at school, and those who regularly attended made quite satisfactory progress. The testimony of the teacher, who has had many years' experience in teaching white children, is that some of these Indian children made more rapid progress than any she had previously taught, showing conclusively that they have active intellect and that the influences of a well-regulated boarding-school will in a short time change materially the habits of the Indian children, and in time, as a consequence, effect a change in the tribe.

There are in the tribe about 83 children of suitable ages for school, nearly all of whom could be comfortably accommodated at the one institution, but only 43 have been in attendance during any one month or more the past year, and the average daily attendance for the year only 19.

There should be arrangements made by which the children could be placed at school and their leaving without permission prevented; but what these arrangements should be, or what course to pursue, I must leave for more suggestive minds to propose, unless, by an amicable agreement with the ruling element of the tribe, the agent could be supported in a requirement for compulsory attendance.

SANITARY.

The sanitary condition of the tribe has been good and the mortality light considering the exposure consequent on living mostly in tents and earth-covered lodges and irregular supplies of wholesome food. The deaths reported during the year are 31, and the births 40. The entire population of the tribe, according to the census recently taken, is 443, which is believed to be slightly under the actual number.

There being no physician employed at this agency, the Indians are obliged to rely much on themselves and their way of doctoring. A supply of common remedies are kept on hand at the agency, which they generally prefer to their own kind. A physician is greatly needed, and could one be employed it is believed he would be generally patronized. The services of a regular physician were obtained in a few complicated cases, which resulted in the recovery of the patients, while similar cases under the Indian treatment generally proved fatal.

Very respectfully submitted.

JESSE W. GRIEST,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

SANTEE AGENCY, NEBRASKA,
Eighthmonth 20, 1878.

RESPECTED FRIEND: In accordance with instructions, I submit my report of affairs at this agency during the past year.

The agency is situated on the southwest side of the Missouri River, townships Nos. 31, 32, and 33, range 4 and 5 west, Knox County, Nebraska, and contains near 115,000 acres of land, a large majority of which is bluff land, suitable only for grazing. That portion along and at the head of the streams is very good farming land. There is one excellent water power on the Bazille Creek, near the western boundary of the reservation, upon which we have a grist-mill; the agency buildings are situated on the north edge of the reservation, near the Missouri River; the dwellings are generally log; the offices and industrial school building are frame and good; the two missions are located about half a mile east and west of the agency buildings.

The *Santee Sioux* came here June 11, 1866, numbering about 1,350 Indians. Since then there has been a gradual decrease, until at this time they number 800. Some went to Flaudreau, Dak., where they are allowed to take homesteads and are governed by the laws of the land; others to Minnesota, and quite a number of them died from the small-pox in 1873. For the last two years they have been remaining about the same in number. They are industrious and have turned their attention to cultivating the land. All wear citizens' clothing and generally make a fine appearance, especially on horseback. They cultivated during the last year 650 acres of wheat and 350 in corn, barley, potatoes, &c., making a total of about 1,000 acres under cultivation. They have broken 460 acres of new land during the past year, and are taking an increased interest in their farm-work. This has been brought about by the hope that Congress will pass an act allowing them to take homesteads on these lands that they are improving.

They begin to realize the importance of cattle raising and the value of oxen, some of the men proposing to do without their issue of beef for one year if I would give them a cow or a yoke of steers instead.

One of the principal advances made in the tribe during the year was the abandonment of the hereditary chieftainships. This was accomplished by regular ballot, and new men elected in the same manner to serve as councilors for the term of two years. The chiefs and headmen were generally old men; the councilors are young men who are taking the lead in work, &c.

The question of land-title was spoken of twelve years ago for the Santees and has been agitated more or less ever since, and bill after bill has been presented to the various committees of Congress praying that a law be passed giving them with others the right to take 160 acres of land as a home for themselves as white men do, and just as often as it has been asked that often it has failed. Here is a failure in the civilizing policy which must be overcome in order to make it a success. If the Indian Department succeed in bringing the Indian to that point where he is willing to abandon his roving habits and live like a white man, then Congress must perform its part in giving homes of their own which cannot be taken from them. For as long as they are not certain of getting what they are working for, their progress in civilization must necessarily be slow. White men will not work for what will not benefit them, and it is folly to expect the Indian to do better than the white man. The Indian has a feeling of justice that prompts him in his actions with the same degree of honesty that a white man has, and as he looks upon the white man as a person who is superior to him in knowledge, he expects him to deal justly under all circumstances, and when he fails to do so, as has been the case repeatedly, the Indian becomes incensed at the white man and acts upon the promptings of his judgment to resent the wrong which has been enacted against him.

The educational facilities are among the best, there being four boarding and four day schools in operation from six to ten months in the year.

The American Board has three schools, one of which is a female industrial school, where the children are taught housework in its various forms, also a male boarding and a day school, in which some of the Indians are employed as teachers. They have large and comfortable buildings, all under the superintendency of Rev. Alfred L. Riggs.

The Episcopal Mission has a girls' industrial school, devoted mainly to housework. They have also three day schools where the common branches are taught under the care of Rev. William W. Fowler.

There is also one industrial school supported by the government, at which the habits of industry are taught in general to male and female. There are twenty-three acres of land connected with this school, in which have been cultivated this year barley, oats, wheat, and vegetables, the boys doing the work under the instructions of the steward. The girls attend to the house and dairy work, mending and making of clothing, &c.

Indian children are brought to the mission schools from other agencies to be educated and those who have been educated are sent as teachers among those who have not the

facilities for education that are to be found here. The Santees are nearly all professors of religion. There are six places for worship which are generally attended on First-day.

The subject of a suitable place for taking care of the sick and infirm has claimed considerable thought the past year as we reduce the issue of rations to them. In general we take from the old as well as the young. The old and blind in many cases suffer, and to remedy this it will be necessary to have a building as an almshouse to bring them to for the purpose of taking care of them.

The blacksmith-shop and grist-mill are conducted entirely by Indians. They are also employed as carpenter apprentices and farm hands. I also have one employed as office clerk at this time, all doing good service and giving general satisfaction. Five years ago it was a difficult matter to procure Indians to fill these places. Now we have no trouble in getting all the hands we wish to help at any kind of work.

There are two facts that I wish to mention to show that the Indians are improving, and that the expenses of taking care of them at this agency is being reduced. The following is the result of Indian labor in 1873 and 1878 and the expenses of white labor in 1874 and 1878:

	1873.	1878.	1874.	1878.
Land cultivated.....acres..	350	1,000		
Land broken.....do..	40	460		
Wheat.....bushels..	2,000	10,000		
Corn.....do..	7,500	9,000		
Oats.....do..	450	500		
Potatoes.....do..	400	1,800		
Hay, cut.....tons..	500	800		
Cattle.....number..	119	257		
Fence made.....rods..	150	700		
Horses.....number..	251	464		
Expense of white labor.....			\$9,760	\$4,030

With a sincere desire that ere I am requested to make my next annual report I may hear that Congress has passed a bill giving the Santees the privilege of taking homesteads on this reservation,

I remain thy friend,

ISAIAH LIGHTNER,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

WINNEBAGO AGENCY, NEBRASKA,
Eighthmonth 23, 1878.

RESPECTED FRIEND: In submitting this, my eighth annual report for this agency, I will first compare the conditions of the *Winnebagoes* at the date of my first annual report in 1869, and at the present time. Then they were an unsettled people, living in tepees, located principally in villages, in the unhealthy bottom-lands, devoting but little attention to agriculture, being fed with weekly rations of beef and flour, costing the government \$19,019.97 during the last nine months of the fiscal year ending June 30, 1870, and \$27,972.72 during the following year; holding in common what little property they possessed, and governed by fourteen hereditary chiefs, who were adverse to the adoption of customs of civilization.

Now nearly every head of a family holds a patent, issued by the General Land Office at Washington for 80 acres of land, which is vested in them and their heirs without the right of alienation. On these 80-acre allotments, 90 substantial houses have been built by contract, consisting of 50 five-room frame houses, costing \$669 each; 25 four-room frame houses with brick base ments, costing \$668.75 each, and 15 four-room brick houses costing \$698 each, besides which there are a number of good frame houses built by the agency carpenters and by the Indians. The aggregate amount of land under cultivation by the Indians on their farms is estimated at 2,500 acres. On the products of this land and the wages received for work performed for the government and for white men in the country adjoining their reservation they depended during the past year for their subsistence, nothing having been issued by the department in the way of rations excepting three pounds of flour per week to each Indian scholar and this only as a reward for regular and punctual attendance at the day schools.

Twelve chiefs are elected annually on the last Tuesday of March by the male members of the tribe over twenty-one years of age. And a marked degree of improvement is noticeable in the dress and general deportment of the *Winnebagoes*.

NATURALIZATIONS.

During the last two or three years the Winnebagoes have frequently discussed the question of their becoming citizens of the United States, and a desire to that end seems to have increased among them to such an extent that I believe a majority are now in favor of taking upon themselves the burthens of citizenship, provided the government will adopt certain measures, which they consider necessary for the care and protection of their property. Their individual wealth at the present time amounts to over one-quarter of a million of dollars, and there are so many questions arising respecting the ownership and protection of this large amount of property, that I conclude that justice can best be obtained by the application of the State laws to the reservation.

EDUCATION.

There are 572 Indian children on the reservation between the ages of six and seventeen years. Of these not more than one-fourth were in attendance at school during any part of the past year. This small attendance is owing partially to the distance of the schools from the homes of some of the children, but principally to the indifference, for the lack of a knowledge of the advantages of an education, on the part of the parents. To overcome this evil I would recommend the erection of more school-houses and the adoption of a compulsory system of education.

AGENCY BUILDINGS.

These were all built during the last thirteen years, and are generally in a good state of repair. They are twenty-four in number, as follows: One agent's house, a two-story frame building twelve years old, said to have cost \$14,000; one council-house, one implement warehouse, three shops, one steam grist-mill with two run of stones and 30-horse power engines, one steam saw-mill with a 25-horse power engine, seven employé houses, five barns, one three-story brick industrial-school building built five years ago at an expense of about \$20,000, and intended to accommodate 80 scholars and necessary employés, and three day-school buildings, two of which were poorly constructed of green lumber, and should be replaced with substantial brick buildings.

CRIMES.

The greatest difficulty that I have experienced in the management of this agency comes from my inability to have justice properly administered. This is owing to the prejudice that exists against Indians in general, and to the want of proper laws and the means of enforcing them on the reservation. For example: Henry Harris, a Winnebago in good standing, an industrious man and a successful farmer, was employed by Joseph Smith, a white man, to cut wood on his land in Dakota County, a short distance north of the reservation. While alone and thus engaged, on the 29th of last January, Harris was shot through the heart with a rifle ball. I had his dead body taken before the coroner of the county, and at the inquest held before that officer it was shown to the satisfaction of the jury, that rendered a verdict in accordance therewith, that the Indian came to his death at the hands of one D. Balinska, who had been for many years leading a hermit's life on a tract of land that he owned adjoining the reservation, and who had threatened Harris's life a few months before when they quarreled about damages for corn destroyed by Balinska's horses. There being snow on the ground at the time of the murder, Balinska was tracked from his home to the place where, under cover, he did the shooting; and his shot-pouch, containing a molded ball of the same weight as the one cut from the body of the Indian, was found near by and identified. Notwithstanding this direct evidence, which was laid before the grand jury of Dakota County, that honorable body was unwilling to find a "true bill," for the reason, as I understand, that it was only an Indian that was killed, and it would not be popular to incur the expense of bringing the case to trial. This is but another illustration of the difficulty of punishing a white man for a wrong committed against an Indian.

I need hardly say that the Indians, when comparing this murder with that of a white man committed eight years ago, by five of their young men, who upon less direct evidence were sentenced to imprisonment in the State penitentiary for life, are struck with the wonderful difference in the application of the same law to whites and Indians.

During last September the office of the agency physician was broken into and about thirty quarts of spirituous liquors stolen therefrom. After much research I succeeded in discovering that two Indians, Lewis Fisher and Snow Ball, were the perpetrators of the crime. As the property belonged to the government, and the evidence seemed conclusive, I thought best to make an example of these Indians, by arraigning them before the United States court. After two or three trips to Omaha with a number of witnesses, their case came before the United States district court at that place, when they pleaded guilty to the charge and were sentenced to ten days' confinement in the county jail.

Finding myself unable to secure assistance from the courts in the administration of justice, I am compelled to fall back on our mild agency system, where prisoners are placed under the charge of Indian policemen, who are not always as strict as white men in enforcing prison regulations. We have at this time three Indians in the agency jail, convicted of horse-stealing. If these could be imprisoned at a distance and their board paid for out of Winnebago funds, the effect would tend to arouse a feeling in the tribe against the perpetrators of these crimes. The sentiment of the tribe in former years, and a trace of it lingers to-day, rather supported horse-stealing, when accomplished without discovery, as the mark of a brave man. I would suggest that some arrangement be effected whereby those convicted of serious offenses may be imprisoned off the reservation at the expense of the tribe.

WISCONSIN WINNEBAGOES.

Until within the last three or four years the stray bands of Winnebagoes remaining in Wisconsin were not considered as having any claim upon the funds of the tribe. Singular as it may seem, no question on this point was raised until that portion of the tribe had been moved, at considerable expense, to a reservation purchased for them in Nebraska, and which they soon after deserted to return to their former homes; since that time over \$16,000 of tribal funds have been set apart each year, awaiting such time as Congress may see proper to divert it to some other use than to settle the Winnebagoes upon their reservation in Nebraska. The Wisconsin Winnebagoes were not taken into account in the computation and payment to the half-breeds in Minnesota of their share of the tribal funds per act of Congress approved March 3, 1871. I consider it a misfortune to have the tribe divided. The Wisconsins certainly cannot find better lands or a more favorable opportunity to better their condition than on their reservation here; and their scattered location affords a safe asylum for escaped criminals from this reservation.

Very respectfully,

HOWARD WHITE,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

NEVADA INDIAN AGENCY, PYRAMID LAKE RESERVE, NEV.

August 19, 1878.

SIR: I have the honor to submit my fourth annual report of the condition of affairs under my charge.

A marked improvement in the conduct and habits of the *Pah-Utes* at Pyramid Lake Reserve has encouraged us to increased efforts in their behalf. They evince greater desire to acquire and retain property, and fence their lands and plant grain, and to remain at home in houses made like white men's houses. All that is needed to foster and encourage them in their praiseworthy intentions is to be able to supply them with food until two or more successful seasons have given them abundant crops and a surplus to lay up against a dry season. During this year they have been rewarded for their labors with good yields, but their hard winters exhaust them.

An excellent saw-mill and engine have been placed on the reservation this year, much to the delight and satisfaction of the Indians. Owing to the preparations for farming and the subsequent harvesting, I was unable to secure enough force to obtain saw-logs; but now that the season is ended, if subsistence can be furnished, the saw-mill can be run constantly, and by the time winter sets in we will have sufficient lumber for all those who are willing and desire to make fences and build houses for themselves. As they have nothing but the fishing business to interfere with their other operations, they can more conveniently devote their time to work of this kind. Though I commenced operations with some misgiving as to the adaptability of cottonwood, our only timber here, I have been agreeably surprised in finding it make as good scantling, boards, and posts as have been brought here from a distance, seasoning well and straight. In a short time, there is every reason to believe, the Indians may be settled in substantial cabins, their farms inclosed with board fences, and themselves be so much further advanced in civilized ways.

The school was opened on the 1st of March, and its very commencement indicated its permanent usefulness. The attendance has averaged about eighteen during the six months of its operation. Larger numbers would have reaped advantage by the instruction given, but for the necessities of parents and relatives requiring the aid of almost the whole population in obtaining food. This difficulty could be obviated by the allowance of small quantities of subsistence for the scholars. We could then make a grand showing in attendance, and much improve the rising *Pah-Ute* generation in intelligence and morality. I consider this part of our work the most important in the

service, it being less difficult to train the youth in industrious habits than to recover the adults from the inherited errors and habits of a savage and superstitious life.

One great cause of discontent among these Indians is the occupation of their fishing grounds on Pyramid Lake by white trespassers. The profits of this traffic are large enough to induce these men to disregard the law and its officers, and the want of definite monuments to define the boundaries seems to give them a technical defense before the courts. If they could be removed I do not doubt but that the Pah-Utes would congregate here in large numbers and soon become permanent.

At Walker River Reservation the crops have been good, the Indians satisfied, and pressing onward to that stage in their progress where they can be safely left to take care of themselves. No new occurrences have varied their quiet, easy life, except occasional rumors of threatened Bannack inroads.

Moapa River Reservation has been unfortunate in not having as good crops as usual during this season, but the Indians are not at all disheartened, and have gathered in their harvest with grateful hearts.

The *Shoshones*, at Carlin Farms Reservation, have advanced so rapidly as to surprise their most sanguine friends. They are industrious and energetic, and extremely anxious to become independent farmers. During the year the receipt of a large quantity of agricultural implements, including a thrasher and cleaner, gave increased impetus to their labors. I have no hesitation in recommending these people as deserving of the highest praise and encouragement. Their crops are larger this year than last, but owing to the exaggerated estimate given by the late farmer in charge of the reservation, the statistics do not show the fact.

Notwithstanding the relationship existing between the *Shoshones* and hostile Bannacks, and the solicitation and threats of the latter, the *Shoshones* remained faithful and gave us frequent notice of events about to happen. The same may be said of the Pah-Utes, to whom the marauders sent messengers asking for alliances of offense and defense. It was a trying period to the force in charge of the Pah-Ute Reservations, and nothing but the kindly relations existing between us enabled me to restrain the few unsteady ones from participating in the depredations and extending the theater of war. Happily, by establishing a scouting system, and counselling with the prominent men of the tribe, I was successful in maintaining peace and quiet, although the alarm was naturally great among the settlers for a time.

An agreeable event of the year was a visit from Pee-sent-yi, or Captain Sam, an influential *Shoshone* of Duck Valley. This man seemed actuated by Christian principles and honorable motives. He came to tell me what he knew of the troubles during hostilities. He had steadily refused to join the Bannacks, although they had come to him and his people; attempted to arouse their prejudices against the whites, whom they designated a common enemy; threatened them with loss of life and property, and yet Pee-sent-yi was bold through all. He replied to them that he had entered into treaty with the United States and would adhere to it; that he preferred all the dangers they spoke of, rather than tell lies to his white friends, and this ended the endeavor to seduce the *Shoshones* from their allegiance. One promise made by the Bannacks was that when they had destroyed the railways and killed the whites, they would divide both sides of the world among their friends, and kill all Indians who had not united with them. Captain Sam thinks the world is wide enough for both races to live in, without rubbing too hard against each other, and said the government should prevent bad white men from imposing on Indians and forcing them into retaliation, and regrets the frequent presence of soldiers among his people, because the soldiers debauch their women and introduce whisky, which makes them bad and prepares them to commit crimes.

The sanitary condition of the Indians has been good, no disease prevailing to any great extent excepting chills and fevers. These afflictions will cling to them until we have them all housed and protected from the changes in temperature. They sleep in the open air at night, which is generally quite cool, and in the day-time expose themselves to the rays of a hot sun. I am happy to say, however, that they are fast adopting our way of living, both as to houses and food. The disease yields readily to simple treatment, where the patient swallows our prescriptions and regulates the diet as ordered. This is difficult to do, because we have no hospital and because of the influence of their medicine-men, who find their occupation nearly gone; and, besides, the old Indians are still strong in their superstitious customs.

A gratifying observation may be made in reference to the sobriety of the Indian residents on the different reservations, intoxication being unknown except among those who hang around the towns on the railways and the mining towns of the interior. * * *

All of them wear the same dress as citizens, and seem anxious to reason and act and talk like white men. Continuous employment will fasten them in their new aims and habits. The men take more willingly to work of all kinds, and have more pride in dressing and acting like ourselves, while the women are equally careful of their own and children's dresses, and all are cheerful in their labors, whether at home or in the

fields. This fact is worthy of remark, as it demonstrates a rapid advance from their silent and morose moods while laboring. They have a more intelligent and appreciative sense of the dignity of labor and its value. Another feature of improvement is their desire for houses built of sawed lumber, with interior adornments. As they have no money to buy pictures, they utilize the stray copies of illustrated papers. They see the necessity for close application to farm-work, and their requests for assistance are usually for plows, harness, and other requisites for agricultural operations. And this fact has helped me to be so urgent in my recommendations of the purchase of farming implements, believing we can solve the problem of self-support in this way better than in dealing out the scant supplies afforded by a limited appropriation. Indeed, these small issues delay the progress of the Indians by allowing them to hope for them for all time, and keeping the idly-disposed from labor. The fertility of the soil, when irrigated, demands but little physical effort to produce abundant returns, and affords a better means of obtaining a sufficiency of food.

They ask frequently about the Sabbath, why we refrain from labor on that day, and are themselves foregoing many of their pleasures and exercises in order to rest as we do, and because they have an indistinct but sensible idea that it is good for them in other ways. This is leading, also, to an abandonment of many of their savage customs and pagan ceremonies. They have less faith in their medicine-men and often laugh at them, and do not so readily kill, as formerly, their horses to make feasts to assist the doctor in his incantations and howlings; nor do they dispose of their most valuable effects to pay him for his care of the patient. This expense is great, since all the friends of the sick Indian congregate at his camp and join their voices with the doctor in invoking relief. As a consequence, we have more demands made for remedies from the medical stores of the agency.

With the means and assistance allowed me in the prosecution of my duties as agent for four different reservations, I feel that as much has been done as could be reasonably expected, and it is a source of great pleasure to me to be able to report so favorable a condition of affairs generally.

Very respectfully, your obedient servant,

A. J. BARNES,
United States Indian Agent, Nevada.

The COMMISSIONER OF INDIAN AFFAIRS.

WESTERN SHOSHONE AGENCY,
Elko, Elko County, Nev., September 14, 1878.

SIR: I have the honor to submit herewith my annual report for 1878.

The *Western Shoshone* Indians are peaceable and most of them improving in civilization. They inhabit most of Eastern, Southeastern, and Northern Nevada, where a reservation has been selected for them. The Central Pacific Railroad divides the south and southeastern part of the country inhabited by these Indians from the northern part. Some of these Indians are migratory, shifting from place to place as they see fit; and others, most of whom are south of the railroad, reside permanently on little farms or ranches cultivated by them, except at some seasons of the year when they are engaged in hunting, gathering pine-nuts, &c.

Twenty-one of these ranches have been cultivated this year to an advantage, all but one of which are south of the railroad. Nearly all of the land so cultivated by Indians belongs to white people. In some cases the Indians pay for rent of the land in labor; in other cases their white friends charge them nothing. The Indians referred to are generally put to a great inconvenience in regard to the use of water, especially this season, which has been unusually dry. In such seasons the white people take the water in preference and the Indian crops suffer thereby. In examining closely into affairs south, I find that something must be done soon for these Indians for the reason that the white people who own the land cultivated by them are likely to take it at any time. In fact, I learn that several cases of this kind will probably occur next year. The Indians state to me that they feel "bad" when they look at the uncertainty of the future, which they fully appreciate. They state that they cannot see what is to become of them unless a suitable reservation is established.

A council was held with several chiefs and leading Indians from south of the railroad, among whom was old Timoke (rope), who, before he became unable to act on account of age, was the recognized chief of all the Western Shoshones, and who even now retains great influence. His arguments were clear, sensible, and plain. He laid before me the present condition of affairs and asked me to do all in my power to improve their situation. He states that he will probably remain in Ruby Valley (which is spoken of as "south") the balance of his days, which can be but few; that he is, however, anxious that something be done for his people; that many years ago this country was valuable to them, there being plenty of game and other means of subsistence; that when the

country first commenced to be settled by the whites they felt encouraged, because they thought the Indians would learn to farm the land to advantage, which would greatly improve their condition. He states that years ago the Shoshones were promised a reservation in Ruby Valley, but subsequently the same land was sold to the whites and nothing more was said about the reservation; and since that time all the valuable land, water, and timber in his country has been disposed of to the whites; that the game, heretofore in abundance, has disappeared; that some of the Indians have gone to farming and have greatly improved in civilized habits, notwithstanding the great disadvantages they have labored under, that is, the scarcity of water and the poor quality of land forced to be taken. He states that his Indians are scattered over a large tract of country; that while many of them, through being employed by the whites, have learned to farm and do almost all kinds of work and are now able to carry on a farm themselves, yet others have become demoralized and are now roving vagabonds, living about mining camps and railroad towns, subsisting upon refuse food thrown away by restaurants and boarding-houses; that they got drunk and committed crimes among themselves; that their squaws are prostitutes; that loathsome diseases were spreading among them; that in consequence they were degenerating and would soon die off if something was not done to improve their condition. He strongly recommended, as the Duck Valley Reservation was the only land unclaimed in the State which was fit for the purpose, that every possible means be used to make it attractive to the Indians, that in time all may be induced to go there and improve in civilization; those who have already learned to farm would serve as an example and encourage the balance. Over 1,000 Shoshones are employed farming for themselves south.

The Shoshones north of the railroad have not been as fortunate as those south. They put in a large amount of wheat, barley, and vegetables, which promised to be a fine crop. In the latter part of April last I was sent for by the Indians to come to the reservation; that some Bannocks were on their way to interview me and the Indians under my charge in regard to some trouble that they stated was likely to occur; that a large number of Shoshones were encamped near Cornucopia, waiting my arrival. I at once went by stage to that place, where I found a large number of Indians who were greatly excited, stating that the Bannocks were preparing to break out. I, after inquiring into affairs, proceeded to the reservation, where I was met by the Bannock Indians, and was told by them that they were sent to see me and the Shoshones whom they had requested to join the Bannocks in a war against the whites, provided that satisfactory terms of peace were not arrived at. They also stated that they were directed to see and warn me that if I used my influence to prevent the alliance they would kill me. I told them to return and remain peaceable; that the Shoshones would not join in a hostile move against the whites, but, on the contrary, would assist the whites if necessary. As the Indians returned home they repeated their threats against me.

In consequence, I visited and warned several of the most isolated ranchers, repeating the threats made by the Bannocks, and advised them to be on their guard, but not to get excited and leave their homes until danger did approach; that I had instructed the Shoshones to keep a close lookout and give them timely warning, which was done by a Shoshone, known by the whites as "Bruno John," Indian name, Ang-ia-tickoo (salmon-eater), who saved many lives by riding night and day to give the promised notice. I would recommend that a special reward be given him.

It will be remembered that I reported the facts of the excitement and probable danger to the honorable Commissioner of Indian Affairs under date of May 6 and May 27, 1878. Finding so much excitement in the country, I selected part of the Indians to remain on the reservation, all that could work to an advantage, and instructed the balance to disperse and try to find work among the whites. A number of them started for the Bruno country; others staid about Mountain City and Cornucopia, and some went to work for ranchers, as advised.

Early in June I was again sent for and informed that the Bannocks were "murdering and plundering through the north country"; that the Shoshones were greatly excited and were congregating on the reservation; that the whites were leaving their homes and fleeing for safety. I proceeded as soon as possible to the scene of trouble, found great excitement prevailing, volunteers arriving daily and proceeding north, with whom I sent Shoshone scouts. Full particulars of this I reported to the honorable Commissioner under date of July 18, 1878. At the reservation all was excitement, and a very large number of horses and cattle had been driven there for safety and were running at large; the Indian crops could not be protected and consequently were destroyed, thus leaving them without any reward for their labor. I am glad to state that the confidence I always have expressed to the department in the good-will and friendship of the Shoshones toward the whites was fully sustained, they acting as scouts and in many ways rendering valuable services, identifying themselves with the whites and winning their good opinion.

In conclusion, I would earnestly recommend that buildings be erected on or near the reserve for store-houses and offices for the accommodation of agent and employes, where the Indians will feel they have a home and where they can expect protection,

or can be justly made. Except an amount of less than \$18,000, I have purchased the entire supplies for this agency for four years (a large proportion in open market), and am well satisfied with a comparison of prices paid with those paid for the same supplies when purchased elsewhere for the agency or with those paid at other agencies similarly situated.

Very respectfully, your obedient servant,

S. A. RUSSELL,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

OFFICE MESCALERO APACHE AGENCY,
South Fork, Lincoln County, N. Mex., August 22, 1878.

SIR: In submitting this my third annual report, I will state at the outset that it will be very brief for many reasons; chief among them is the greatly-disturbed condition of affairs in this country. There is and has been existing for some time two factions, who have kept up a continual and murderous warfare, in which many people have been murdered and many valuable lives lost, and in consequence of which the Indians have been in a state of continual alarm, having been attacked by different parties, who killed some of them and stole their horses. This has, to a great extent, caused them (the Indians) to abandon their planting and scatter in the mountains, so that they would be away from the main roads and only in reach of the agency to draw their rations. Two of the bands, Estrella's and Peso's, have almost all left the agency, and are only visiting it when they are very hungry and needy. I have used my utmost endeavors to allay their fears, and when almost successful, the military, with Navajo scouts, attacked them, and killed some and took one child prisoner. This move has caused me further trouble to get them together.

This agency will not be a complete success until it is removed from the main road and comparatively out of the reach of the influence of designing and unscrupulous persons, both Americans and Mexicans, as has been recommended in my former annual reports, and to which I would respectfully call your attention. I am fully satisfied that these Indians are tractable and obedient, and by removing these outside influences their civilization could be advanced rapidly. The Indians of this agency have been so annoyed by raids, &c., that they are very suspicious, and will not place confidence in any stranger. As an instance, when Mr. Frank Warner Angel, special agent, &c., and Colonel Purington, Ninth Cavalry, were here to assist me in counting them, I used my utmost endeavors to get them all in, but was unsuccessful. One band of about 200, who were only about one-half mile distant, told my messenger that if the strangers wished to count them they (the strangers) could come to their camp. They were not counted.

The school, taking into consideration the unsettled state of affairs, has been very prosperous and gratifying in the extreme. Inspector Watkins and Special Agent Angel, also the officers of Fort Stanton, who have visited the agency very frequently, have given great credit and praise to the teacher. The progress made by the pupils has exceeded my most sanguine expectations, and in all of my experience with Indians I have never known a tribe more apt and desirous to learn. I sincerely hope that the department will assist (by every means at its command) the agent to continue this good work, as it is the great channel to civilization.

The buildings belonging to the agency are in about the same condition as reported in my last annual report. Owing to their bad condition, I have had great trouble in keeping the public property from being destroyed by the weather. Having left the Blazer property, I am now living in a portion of the building formerly occupied by the trader. I made this move on account of the unsettled state of county affairs and to enable me to have more immediate supervision over the public property. For its own benefit and security, the department cannot too soon erect good agency buildings.

I am, very respectfully, your obedient servant,

F. C. GODFROY,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

NAVAJO INDIAN AGENCY,
Fort Defiance, Ariz., August 3, 1878.

SIR: Having had charge of this agency but three months at the close of the fiscal year, 1878, a period altogether insufficient for forming anything approaching a thorough acquaintance with the condition, wants, and habits of this large and increasing tribe,

a few remarks and suggestions of a general character, having reference mainly to the future of the *Navajos*, the treaty with whom is now about to expire, is all that can be embraced in this report.

Within the ten years during which the present treaty with the *Navajos* has been in force they have grown from a band of paupers to a nation of prosperous, industrious, shrewd, and (for barbarians) intelligent people. It should be remembered, however, that they were made paupers by disastrous warfare with the whites, principally Mexicans supported by United States troops, the responsibility for which does not by any means rest entirely with the Indians. Previous to their removal to Bosque Redondo the *Navajos* were far from being paupers. They owned large herds of domestic animals, fields of grain, gardens and orchards, and successfully and extensively cultivated the comparatively barren soil of their native country, though they were then much less prosperous than they are at present.

So far but little progress has been made in the effort to induce these Indians to adopt the white man's method for the cultivation of the soil. But this is readily accounted for by the fact that, owing to peculiarities of soil and climate, a *Navajo*, with his sharp stick and hoe, can get from one-third to one-half larger returns than the white man can from the same ground with the best improved farm machinery now in use. Fall plowing, however, I feel well assured, would be a vast improvement over the primitive method of farming adopted by the *Navajos*, but I have seen enough to convince me that the ground should not be stirred in the spring.

By far the largest separate body of arable land within the reservation, and the best adapted to improved means of cultivation, is found in the valley of the San Juan River, now lying idle on account of its dangerous proximity to the *Utes*, who are only too ready to depredate upon the property of the more industrious and less warlike *Navajos*. One of two events must happen before this desirable body of land can be made available for the support of a people who are ever ready to avail themselves of every inch of ground that can be made to yield to cultivation—the removal of the *Utes* from Southern Colorado, or the locating of the proposed new *Navajo* Agency in the valley of the San Juan River. Either would accomplish the result.

The failure of the department to carry out the provisions of section 3 of the existing treaty with these Indians has, doubtless, had much to do with the successive failures of teachers and agents in the matter of education. Had comfortable and attractive school-houses been erected at proper points and at once, as provided for by treaty, and necessary discretion given to agents to enable them to encourage the attendance of children at the schools by a liberal but discreet use of the agency's supplies and annuities, at least something might have been accomplished for education, whereas the lamentable spectacle presents itself of an almost expired treaty, an expenditure of thousands of dollars upon transient teachers of more transient scholars, and not a solitary *Navajo* who can either read or write. That some such course as that indicated above was not pursued from the commencement in regard to the education of this people, is a matter profoundly to be regretted, inasmuch as it is only through the education of the young that the eradication of superstition from among the tribe can be effected: superstitions which are the great obstacle in the way of their advancement to a higher plane of civilization and operate as a fruitful source of crime and contention.

Why the agency should have been allowed to remain in its present location through all these years it is difficult to conceive, as it is most unfortunate in every respect, especially as to the maintenance of any regularity in the attendance at the schools. There is little, very little, tillable land in the vicinity, nor is there any other feature which would make it desirable for permanent settlement by Indian families.

It is estimated that but a little over half of the tribe live permanently upon the reservation. Many are upon the reserve at certain seasons and off at others, owing to circumstances—scarcity of water, prevalence of snow, &c. From the best information I have been able to gather on the subject, I incline to the belief that the natural resources of the reservation are totally inadequate to the support of the tribe, in which opinion I am sustained by all intelligent persons who are conversant with its features. Now, the *Navajo* would not exchange his desert home for the most favored spot that could be selected elsewhere, and if this reservation is found to be too limited for his necessities, why not give him more desert? Cannot our government afford to be a little magnanimous and give to a peaceable and industrious tribe of Indians a few more square miles of barren sands? But I suppose it would be worse than folly to ask more territory for any tribe, however deserving, from a government that does not secure to the Indian the peaceable possession of lands already guaranteed to him by solemn treaty stipulation.

Hundreds of acres of the best grazing lands of the reservation are rendered valueless by their great distance from water-courses and springs, and it is respectfully recommended that a few hundreds of dollars be diverted from the usual yearly purchase of supplies for the tribe, and expended in experimenting in sinking of wells, and in the erection of wind-power pumps at suitable points, with a view to making

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these lands habitable. A gentleman living at no great distance from the reservation recently erected a wind-power pump and sunk a well on his ranch, with the most gratifying results. There is good reason for supposing that an abundant supply of water may be found at from 25 to 60 feet at very many points in the districts referred to. Successful effort in this direction would render the reservation capable of sustaining a much greater population than is possible in its present condition. A few hundreds spent in this manner might, and in all probability would, be worth more to the tribe than as many thousands invested in flour and beef.

The hovels (it would be a misnomer to call them houses) occupied at present for agency purposes, with their dirt walls, dirt floors, and dirt roofs, were built by the Army for use as a military post upward of twenty-five years ago, and for a long time have been in a miserably dilapidated condition, dark, damp, and unhealthy. On this account mainly all efforts to induce respectable families to reside here and engage in the work of teaching have proved unavailing. The recent decision of the department to allow of the erection of new agency buildings, more essentially school-houses, though coming at the eleventh hour, is hailed as an omen of better things in the future for education among the Navajos. But there are many and very serious obstacles to be overcome in this work. The chiefs are averse to having the children educated, and parents and guardians say they cannot be spared from the care of the flocks. It will be necessary, for a time at least, to "compel them to come in." In order to effect a beginning and awaken a thirst for knowledge, orphan children will have to be sought out and not only taught but clothed and fed within the walls of the school-houses.

The time has come, I think, when the issue of daily rations to the Navajos, excepting to a limited number—laborers at the agency and those of the infirm who are within reach—should be discontinued, as demoralizing in its tendency. If they are to receive anything further from the government let it come in such shape as will help them to help themselves. Give them cattle, sheep, agricultural implements, and seeds, and do more for their education, and by these means they will the sooner become self-sustaining. The Navajos are a nation of workers. The drones are very, very few. They are, as a rule, provident. The few thousand sheep given them a few years ago have increased to hundreds of thousands. But they are still inclined to a roving life, and are disinclined to settle down in permanent homes. In his present state of mental and spiritual darkness the Navajo cannot be expected to build him a house at any considerable expense. He firmly believes that certain death will speedily overtake the individual who recklessly enters where a human being has died. When the death-palor settles upon the brow of the expiring Navajo he is deserted by his relatives and friends, the prop-stays of his hogan are removed, and his house becomes his tomb.

Whether the treaty now about to expire is or is not renewed, no one need fear that the Navajos will give serious trouble. They have too much at stake in their immense herds of sheep, goats, horses, and cattle, their hundreds of thousands of pounds of grain in the field and the cache, to hazard it in war with a powerful nation. Since their experience as prisoners of war at the Bosque Rodondo they want no more war.

But this peaceful disposition on the part of the Navajos, their industrious habits and willingness and ability to make their own support, should not be allowed to operate as a barrier to their receiving all that is due them by the terms of their treaty. On the contrary, it affords one of the very best of reasons why the obligations of the government, as set forth in the treaty, should be fulfilled to the letter.

Very respectfully,

JOHN C. PYLE,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

OFFICE OF PUEBLO INDIAN AGENCY,
Santa Fé, New Mex., September 4, 1878.

SIR: I have the honor to submit hereby my sixth annual report as United States Indian agent.

The *Pueblo* Indians, of New Mexico, number about 9,000. They live in towns built of stone or adobe, and are widely scattered over the Territory. They are an honest, plodding people, and are nearly always entirely independent of government in respect of material aid. They raise all the products of the country, including fruit, and also give much attention to flocks and herds.

Last spring it was necessary to assist seven of the northern pueblos on account of their crops having been destroyed the year before by grasshoppers. One hundred and thirty-three thousand pounds of wheat were issued to them, and this year all the pueblos are in a prosperous condition, as far as I have been able to learn, except Laguna, where the crops have been nearly a failure on account of grasshoppers and drought.

The progress made in educating these Indians during the last year has been very

satisfactory, but we hope to make much more rapid progress during the present year. The Laguna school has been working up to the full measure of its facilities, and arrangements are being made to increase the facilities this fall. Lumber has been purchased for a good addition to the school-house and church, and the Indians have lately promised to proceed with the building. The teacher has just purchased a large printing press to replace his small one which was lately broken, so that he will soon be able to continue his printing in better style than ever before.

The Jemez school was opened on March 1, 1878, and has been progressing most satisfactorily. Arrangements are just now in progress by the Presbyterian Church for the building of a good residence for the teachers of that school, and I expect soon to secure funds from government for the erection of first-class buildings for a central training and boarding school at the same place, where children can be gathered in from all the pueblos and given all the advantages of a well-ordered home and school combined.

Unfortunately, the Zuñi school had to be closed early last spring on account of the entire failure of the health of the teacher. It is expected that another good M. D. teacher will reopen that school this fall, and, if so, a residence will be built by the Presbyterian Church, and probably a good boarding-school by the government. None but first-class M. D. teachers, with families, are now engaged for the Pueblo schools, and it is hoped that all the schools will soon be established on a permanent and very efficient basis.

Something less than the usual amount of work has been required of the agent during the year to protect the Pueblos from the aggression and oppression of the citizens, and, altogether, the condition of these Indians seems to be improving.

The *Utes* and *Apaches* of Cimarron continued under the care of the agent for the Pueblos until the 18th of July, 1878, when the Cimarron Agency was discontinued and the Utes moved to the Southern Ute Agency, Colorado, and the Apaches started to the Mescalero Apache Agency, New Mexico; but the majority of them went to the Abiquiu Agency, where they still remain. The state of anarchy about the Mescalero Agency prevents their going on to that agency for the present at least.

On the 20th of August, 1878, I was placed in charge of the Abiquiu Agency. The Indians of that agency are situated just as those of the Cimarron Agency were, on a private land-grant, where they are not allowed to cultivate land if they would, and with the agency located in a Mexican village where there is every facility for procuring whisky. My main effort for the improvement of these Indians will be directed from the first with a view to getting them removed to a home of their own in the Indian Territory.

Very respectfully, your obedient servant,

BEN. M. THOMAS,

United States Indian Agent, Pueblo and Abiquiu Agencies.

The COMMISSIONER OF INDIAN AFFAIRS.

NEW YORK INDIAN AGENCY,

Forestville, N. Y., October 15, 1878.

SIR: In making my ninth annual report, I have the honor to state that the 31 schools on the eight reservations in this agency have been taught the average period of eight months during the year ending September 30, 1878. Of these, 2 were manual-labor schools, and 29 day-schools. Of the manual-labor schools, one, upon the Allegany Reservation, is in charge of, and is wholly supported by, the Society of Friends at Philadelphia, at an annual expense of about \$3,000. Its average attendance during the past year has been about 30 Indian pupils. The other, upon the Cattaraugus Reservation, incorporated under the laws of New York by the name of the Thomas Orphan Asylum, has had an average attendance of 85 Indian children, and has been supported at an expense of about \$9,000. Both of these schools have been in successful operation many years, under judicious management, and have exerted a beneficent and powerful influence in the general advancement of the Indians of this agency in civilization. In them the Indian pupils have been taught to work, have been kept under proper restraint and discipline, thoroughly instructed in the common English branches, and fitted for life's practical duties.

Of the 29 day-schools in the agency, 7 are upon the Allegany Reservation, 10 at Cattaraugus, 1 at Cornplanter, 3 at Tonawanda, 2 at Tuscarora, 2 at Onondaga, 2 at Oneida, and 2 at Saint Regis. Of these, 27 are supported by the State of New York, 1 by the State of Pennsylvania, and 1 upon the Onondaga Reservation, by the Episcopalians.

Of the 5,246 Indians in the agency, 1,763 can read, of which last number 1,187 are under the age of 20 years.

The amount of funds expended in sustaining these schools during the school year

ending September 30, 1878, was \$20,979.09, no part of which was paid by the United States.

The number of Indian pupils attending school one month or more during such year was 1,166, being an increase of 60 over the preceding year. The largest number in attendance during any one month was 939, and the largest average attendance during any one month, 869. The average attendance during the eight months the schools were taught in the year was 653, being an increase of 30 over the preceding year.

The Indians have expended during the year towards support of these schools \$490, besides appropriating from their annuity-funds \$1,000, as hereinafter stated.

Of the 32 teachers engaged in these schools, 11 were Indians. All of the Indian teachers have succeeded well, except one, and they have instructed some of the largest and best schools in the agency, including that of the Thomas Orphan Asylum, which has had an average attendance of 85 Indian students. The Indians upon all the reservations now favor the education of their children, and during the past few years there has been marked improvement in punctuality and regularity of attendance.

During many years the United States contributed from the fund for civilization of Indians \$1,000 annually toward sustaining the Thomas Orphan Asylum on the Cattaraugus Reservation. For two years past such appropriation has been withheld. The chiefs of the Six Nations of New York, in special council at Cattaraugus, on the 29th day of September last, appropriated, by the vote of 36 for to 3 opposed, \$1,000 to sustain this asylum, from their annuity arising under treaty of November 11, 1794, being about one-third of the annuity for one year, arising from such treaty, belonging to Indians now residing in this agency.

The Senecas of the Tonawanda band heretofore appropriated \$6,100 from their trust-fund interest for the establishment of a manual-labor school upon the Tonawanda Reservation. This sum, together with \$5,500 appropriated by the State of New York, has been expended in the purchase of 80 acres of improved land, and the erection of suitable buildings for the school, except a small sum reserved for purchase of team and farming implements and other necessary things in such an institution. The school is incorporated under the laws of New York, and is under the charge of three trustees (white men), who, as required, have given bonds in the sum of \$10,000 each, approved by the county judge of Genesee County, New York, for the faithful discharge of their duties. The legislature of New York, at its last session, appropriated \$1,000, in addition to former appropriations for completion of the buildings, which are now nearly ready for use. It is designed that this manual-labor school shall be as nearly self-sustaining as possible; that the Indian children shall be required to work as well as learn from books. A further appropriation seems to be indispensably necessary in organizing and starting the school. As I have stated, the Indians have already appropriated \$6,100, and the State of New York \$5,500. The last appropriation from the State was all that could be obtained, although more was asked. Is the United States Government less able to aid its Indian wards in New York than heretofore? The chiefs of the Tonawanda band are very desirous to see their manual-labor school in successful operation. They do not feel that they can ask their people at present to contribute more from their annuities for the object. The Indians are poor and need their annuities for purchase of food and clothing for themselves and their children. They have already contributed \$6,100. They ask for an appropriation of \$1,000 from the United States, to be paid to the trustees of their school to start it. I think that this is the first case that the Indians of any tribe have so generously contributed from their annuities for the education of their children. Will not Congress appropriate *one-sixth* part as much to enable the Tonawanda Senecas to put their manual-labor school in successful operation?

The statistics of farming inclosed herewith show a gratifying increase of farm products during the year, the amount of wheat raised by Indians, in bushels, being 18,365; corn, 76,915; oats, 67,880; apples, 26,025; peaches, 2,835; tons of hay cut, 4,730. The Indians upon all the reservations in the agency appear to be taking an increased interest in farming, and are improving in habits of temperance.

Within the past few months two conventions of Indians, called by their leading men for the express purpose of encouraging them in habits of industry and temperance, have been held upon the Cattaraugus and Allegany Reservations. The Indians turned out in mass to these conventions, and were addressed by leading Indians and others, in short, stirring, and practical speeches. The one held upon the fair grounds at Cattaraugus, on the 28th of June last, was especially noteworthy for the interest manifested. About 1,200 Indians were present, besides several hundred white people from the surrounding country. The two Indian cornet brass bands of the Cattaraugus Reservation imparted additional interest to the meeting by their excellent music. After the exercises closed at the stand, all were invited to repair to the tables in the grove near by, which the Indian women had prepared and spread with a bountiful supply of well-cooked meats, chickens, bread, cakes, and pastry, in great variety, and of good quality. The tables were also tastefully ornamented with flowers. Tea and coffee were served to all who desired. The white people were invited to participate, and generally ac-

cepted the hospitality offered, and expressed great surprise at the abundant supply of provisions, sufficient to feed the multitude, at the excellence of the cooking, and the skill and taste with which the Indian women had arranged and conducted the picnic. All the Indians present appeared to be comfortably and decently clothed, and conducted themselves with the utmost decorum, without the least profanity, and not one intoxicated person was present.

At the date of making this report over 200 of the leading Indians of this agency are absent from their reservations, including three Indian cornet brass bands, attending the temperance convention of the "Six Nations of the Grand River," in Canada West, and I am requested to delay the delivery of annuity goods until their return.

The present Indian population of this agency is 5,246, including 163 Indians of mixed blood residing upon the reservations, descendants of white women, but of Indian parentage on the paternal side, showing about the same continued increase in population which has from year to year kept pace with their progress in civilization during 20 years past, their census in 1865, as taken by the State of New York, being 3,960, which did not include about 50 Indians then residing on the Cornplanter reserve in Pennsylvania.

Very respectfully, your obedient servant,

D. SHERMAN,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

GRAND RONDE AGENCY, OREGON,
August 14, 1878.

SIR: In compliance with the regulations of the Indian Department I have the honor to submit this my seventh annual report of the affairs at this agency.

The Indians of the agency are now living upon their farms and cultivating their lands and following the avocation of farmers, much the same as white farmers, on a small scale, the average number of acres cultivated by a single Indian or family being from 25 to 50 acres, while quite a number of them cultivate as high as 50 to 100 acres. Those having the necessary teams and implements to farm, after putting into grain their individual lands, rent from other Indians who are not prepared to conduct their farming operations, and put in grain upon shares, paying for the use of the lands about one-third of the grain cropped from the land, and by this method many who are disqualified from farming upon their own account from sickness or inability to procure teams, farming implements, &c., derive considerable revenue from their lands, while the renters are enabled to profit by their industries, and from year to year increase their farming operations.

The cereals raised upon the agency consist almost wholly of wheat and oats, they being the best adapted to the soil and climate; and the wheat meeting with ready sale is the easier converted into provisions and clothing and articles of husbandry, while the oats are used for their work animals, while almost all of the Indians cure and put away timothy hay for their work animals in winter. The agency is well adapted to farming operations as conducted by Indians, as from the rolling and uneven character of the lands they are able to plow at almost any time during the fall, winter, and spring months. The natural drainage prevents the ground from becoming so wet as to be unfit for cultivation, and with but one team an Indian is able to cultivate considerable of an area of land, when if the land was flat and subject to overflow the time for plowing would be so short but little could be accomplished.

The Indians of this agency are remnants of several different tribes, composed of *Molels*, numbering about 25 males and 30 females; *Clackamas*, numbering 27 males and 32 females; *Oregon Citys*, 19 males and 24 females; *Wappato Lakes*, males 31, females 30; *Yamhills*, males 18, females 20; *Luckiamutes*, 14 males and 12 females; *Mary Rivers*, 15 males and 17 females; *Santiams*, 37 males, and females 39; *Calipooias*, 15 males and 16 females; *Cow Creeks*, males 13 and females 15; *Rogue Rivers*, males 60 and females 69; *Shastas*, males 35 and 37 females; *Umquas*, males 66 and females 69; and some few *Nestucca* and *Salmon River* Indians, who have come upon the agency since their country was thrown open for settlement by the whites.

Almost every tribe upon the agency (excepting perhaps the majority of the *Rogue Rivers*) are as a rule becoming industrious and striving to emulate the whites in their farming operations, and are accumulating a fair grade of horses, cattle, and swine, while some few have sheep; and such useful animals are rapidly taking the place of the worthless Indian ponies which formerly constituted the wealth of the Indians. The Indians of the agency will, at their own expense, and by their own industry, notwithstanding the extremely dry season, raise from ten to twelve thousand bushels of grain the present season, and at this time are running one government reaper and two of their own, without any other assistance from the department than repairing their machines when breaks occur.

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No farming operations have been carried on at the agency by the department during the past year with the exception of some thirty tons of hay being cut for the stock, as no employes are allowed at the agency other than a miller and interpreter, and no funds furnished to prosecute farm work.

The school building mentioned in my last annual report as in course of construction was completed and ready for occupation about the 15th of September, 1877, and the school, under the management of the "Sisters of the Holy Names," has been conducted in the new building under a contract between the department at Washington and the Rev. J. B. A. Brouillet. The building is large, commodious, and well adapted for the purpose of a boarding-school, and is centrally located. The attendance at the school has been fair (the average being about 33 or 34), and the improvement of the pupils more marked and generally satisfactory than for many years past, and the teachers have exhibited untiring patience and care of the pupils, and have clothed the Indian pupils in neatness and comfort.

The missionary work of the agency has been under the supervision of the Rev. A. J. Croquet, who has been long and favorably known among these Indians as a spiritual teacher, and in whom they place the most implicit confidence, and, as a result of his long, ardent, and faithful work among them, almost the entire Indian population of the agency have united with the church, and are regular and attentive in their church each Sunday.

The presence of Chinamen in this State of late years is causing the Indians of the agency to lose a considerable revenue which they have formerly secured by grubbing, making rails, and harvesting and picking hops, &c., for the white settlers off the agency, as they have formerly been generally employed to perform this class of labor which is now almost entirely performed by Chinamen.

The Indian war existing upon the eastern border of the State for the past few months, has caused an uneasiness in the minds of some of the whites in the counties bordering upon the agency, which was augmented to some extent by an affray which occurred in the month of June, 1878, at the mouth of Salmon River, some thirty miles from this agency, between a white man and an Indian, and which resulted in the death of both the Indian and white man. From this cause I have been compelled to keep the Indians more closely upon the reservation, and not permit them to seek employment elsewhere. The matter of this affray was, however, fully explained to the department by letter, and will not be detailed in this report.

The general health of the Indians during the past year has been good, and but very few deaths have occurred.

A statistical return is herewith inclosed and made a part of this report, for a more detailed report of the stock owned and work performed by the Indians, &c.

I have the honor to remain, very respectfully, your obedient servant.

T. B. SINNOTT,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

KLAMATH AGENCY, LAKE COUNTY, OREGON,
August 20, 1878.

SIR: In accordance with instructions, I herewith transmit my second annual report of the situation, condition, progress, and prospects of the service, or wards of the government here.

At this time, just after the great excitement caused by the Bannock war and unprincipled men, it affords me great pleasure to report the Indians of this reservation loyal, peaceable, and well disposed toward all mankind. During the summer, while the whole country around them was wild with excitement, they behaved themselves with coolness, judgment, and good sense, and yet they manifested a deep interest in the passing events, always manifesting satisfaction when the news was good and sorrow when it was bad.

LOCATION AND AGRICULTURE.

We are in the southeasterly part of the State of Oregon. The Klamath Lake, around which the principal valleys of the reservation lie, is more than 4,000 feet above the level of the sea, and surrounded with mountains. The frosts during the entire year and the dry summers render it so uncertain as to producing crops that it is given up as a failure. It has been found that one crop in four or five years is all that can be produced. To try every possible way and place, last spring I went myself and sent the employes and selected places apparently most sheltered from the frost and best adapted to cultivation, and we sowed and planted about 150 acres, but the drought this season blasted it all.

INDUSTRY.

The *Klamath* Indians are as industrious as the average of our own people, and taking into account the disadvantages under which they labor they deserve great credit. This is not a farming country either on the reservation or adjacent to it, and the country is very sparsely settled for more than 100 miles, making it difficult for them to get work to do. When there is work to be done, such as haying and cutting wood at the fort, or making rails for any one near the reservation, these Indians go at it and do the work as if they enjoyed it. They build houses for themselves and fence pieces of land, and repeatedly try to raise crops, but mostly fail for the reasons stated above.

FOOD, AND MANNER OF OBTAINING IT.

Early in the spring and depending somewhat, as to time, upon the mildness of the weather and rains, fish in great abundance run up the little streams and are taken out by nets, spears, and even by the hands. These are used fresh for present food and dried for future supplies. The fishing season lasts from four to six weeks.

Just as the Indians get home and put away their dried fish, the camas crop (a small bulb, which grows in abundance here) is ripe, and they go out in every direction to the little valleys and camp out to gather this harvest. The women dig these roots and dry them while the men hunt. By the time this crop is harvested and put away, the *wookes* (the seed of the pond-lilly) is ripe and ready for them. This is their choice crop, and many families gather from 15 to 30 bushels of it. This takes about six weeks. Then the berry crop is just ripe, and very abundant. They gather these and dry them, and use them during the winter. This brings them up to the winter when they must gather at their homes for shelter, and to subsist on what they have laid up during the summer.

It will be seen from the above that this reservation is better adapted to the tribal relation than the quiet family home, and notwithstanding the attachment these people have for their country, it would be better for them in the future if they had an agricultural country.

CIVILIZATION.

The Americans are an impatient people. They are not willing to await the length of time necessary to elevate a morally debased and savage race. They forget that their ancestors were once a race of idolaters, and that it took a thousand years to transform pagan Britain into Christian England. Progress, which seems slow when considered from year to year, is seen to be considerable when viewed by decades. Twenty years ago the *Klamath* Nation was in utter darkness. Their best men were controlled by the basest superstitions. The masses were very low and very degraded. An eclipse was regarded with the greatest horror. At an eclipse of the moon they set up the most hideous howlings in order to frighten away what they regarded as a monstrous fish endeavoring to eat up that luminary. They regarded their medicine-men with superstitious dread, supposing that they had the power to kill or cure by unseen means, even when at a great distance. They also believed that their doctors could so control the elements that by their incantations they could cause it to rain or not to rain. They had very vague ideas of a Supreme Being, of a future state, and of moral responsibility. They were cruel in war, sometimes making slaves of their captives, and sometimes torturing and scalping their victims. Their women were the most abject slaves, and their infirm or old people were often left to die of neglect or starvation, and were frequently killed to get them out of the way. Polygamy was quite common, especially among those who had means to buy more than one wife. They were very tyrannical in their treatment of their women. No regard was had for the rights of unmarried women, especially if young girls. They were at the mercy of every licentious savage.

Ten years ago the work of civilization had just begun. The light was breaking through the darkness. A few minds began to have a perception of their degradation and began to struggle to rise above it. Among these were Blow, now the head chief of the nation, and David Hill, a chief and interpreter. These men are to-day really Christian men and sincere lovers of peace. Some others of the tribe have felt more or less the power and inspiration of a Christian civilization. These results have been attained principally by religious teachings and the influence of the boarding school at the agency.

SUNDAY SERVICES.

The Sunday-school is held as a memory service, in which all present participate. The children are required to memorize and rise in their seats and repeat portions of Scripture. We sometimes distribute among them Sunday-school cards, with Bible verses and other appropriate readings. These they memorize during the week and repeat on the next Sabbath morning. The adult whites follow with one or more Bible verses and frequent comments upon the same. All the Indians present who cannot use the English are encouraged to talk in their native tongue. These services are commenced by singing for one half hour Sunday-school hymns, in which all the Indian children

heartily join. These children are becoming quite proficient in vocal music, and some of them have very sweet voices. In the afternoon is held another religious service, introduced by a brief sermon, followed by remarks by one or more of the most intelligent Christian Indians, who address their own people in Klamath.

BOARDING SCHOOL.

So extremely jealous are the Indians of any interference with their personal liberty and that of their children that it required great effort to establish this school, and continued effort and persuasion to keep the numbers up to 10 or 25 pupils. Another difficulty has been the scantiness and uncertainty of supplies to give the school a tolerably decent appearance even in the eyes of untutored Indians. Yet, notwithstanding these and other adverse circumstances, good results have been achieved, and will, I believe, continue to be achieved. But instead of \$500 for school supplies, we ought to have at the least \$1,500. We might then be able to very largely increase the attendance and the interest in the school, and very materially hasten the time when not only scores but hundreds shall be entirely emancipated from the thralldom of ignorance and superstition.

SANITARY.

Whole number of Indians treated and receiving medicine during the past year is 1,184. Whole number of deaths that have come to my knowledge, 23—males 7, females 16; children under 14 years of age, 15; over 18 years and in the prime of life, 1; aged, 7; died under treatment, 5—males 1, females 4; died from accident 4—3 from falling from horses, 1 from being overlain; 3 infants, one a boy about 12 years old. It is impossible to tell the number of births. These statements apply principally to the *Klamaths* and *Modocs*, as the *Snakes* rarely get medicines and are very healthy. The principal diseases are such as are produced from fatigue and exposure, as diarrhea and dysentery in infants, and pulmonary complaints and rheumatism in the adults. Sore eyes are very common among all the Indians. Their manner of life is such that only the hardy survive to an adult age. Their food consists of fish taken from the rivers and lakes, the flesh of various animals killed in hunting, and almost every vegetable substance which is not absolutely poisonous. Of these, some, as the *wookes*, or seed of the yellow pond-lily, the camas and other roots, are both nutritious and palatable, while others, as the tender buds of the pine tree, the berries of the wild currant, the choke cherry, and the juniper berry, are not palatable or nutritious.

A great many of the older Indians suffer from the effects of syphilis contracted years ago when they made annual trips to Oregon City, and other distant points, but primary syphilis is not common, as the Indians generally marry young and are not more licentious than white people. Prostitution is confined to only a few who visit the fort. I consider the practice of sweating, in which they all indulge, as greatly promoting their sanitary condition. It keeps the skin active and often breaks up severe colds, which they are frequently taking. The women have a practice of sitting over warm stones and steaming themselves after parturition, which must greatly tend to purify their systems and to prevent puerperal fevers, as that disease is unknown among these Indians.

The belief in the supernatural power of their doctors to cause and cure sickness, to influence the weather and all natural phenomena is one of the last superstitions which they give up, if indeed an Indian ever did completely relinquish the idea. It is completely interwoven in their natures, and it takes something more than the mere dictum of the white man, or a disposition on the Indian's part, to be like the white man, to overcome what is inbred in his being. A great many prefer the white doctors, not because they have no faith in the Indian doctors, but because they think that he makes them sick for the purpose of extorting a fee from them for the cure. There is also a general belief among the Indians that their doctors are not as powerful in these degenerate modern days as they were anciently, when they communed face to face with the Great Spirit.

J. H. ROORK,
Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

OFFICE MALHEUR AGENCY,
Canyon City, Oreg., August 1, 1878.

SIR: Inclosed herewith I have the honor to transmit my third annual statistical report, and with it would respectfully submit the following review of the condition at this agency:

THE NEZ PERCÉS WAR.

At the date of my last report the Nez Percés hostilities were raging near our borders. So alarming was the state of affairs that our Indians were kept closely upon their res-

ervations and near the agency all summer. Their usual hunting and fishing excursions were abandoned; and though the rations of subsistence issued to them were scant, they remained quietly at work with little apparent dissatisfaction or complaint. Seeming to realize the danger threatening their straggling brethren roaming the country without the privileges and protection of a reservation, they entered heartily into the

WORK OF SPECIAL AGENT TURNER.

Chief Egan accompanied Mr. Turner as guide and interpreter on his trip to the Weiser country, where he had been ordered in response to a request of M. Brayman, governor of Idaho, under date of July 28, 1877. He also went with Mr. Turner to Silver City, Boulder Creek, and Owyhee River, and seemed very earnest in his endeavors to induce all the Indians whom they visited to come to the agency and share his home with him. Through their combined efforts 139 Weisers, under chiefs Eagle Eye and Bear Skin, were induced to come to and accept Malheur Reservation as their future home.

WINNEMUCCA.

Under date of July 26, 1877, I made inquiry of Levi A. Gheen, farmer in charge at Elko, Nev., what action, if any, had been taken by him in relation to the establishment of an Indian agency at Duck Valley. He replied under date of August 16, 1877, giving details of his action under instructions of the Indian Bureau, and concluded:

I have received no instructions to induce Winnemucca and his followers to go to the proposed reservation. The tract of land referred to, as I understand it, has been reserved for the use of the Western Shoshones, who heretofore have had no reservation. My experience teaches me that the Pah-Utes and Shoshones do not get along well together. I therefore believe it would be bad policy to undertake to mix them to any great extent. I intend to issue the annuity goods belonging to the Shoshones at or near Duck Valley this fall, but shall issue none to Winnemucca and his followers, unless ordered to do so by the Commissioner of Indian Affairs.

In pursuance of this information, Special Agent Turner was directed to visit Winnemucca's band on Owyhee River for the purpose of inducing him to return to the agency. In his report of September 10, 1877, Mr Turner says:

I proceeded to Boulder Creek, 30 miles south of Silver City, where I found Winnemucca and Leggins, one of his subchiefs, and after a prolonged interview they agreed to return to Malheur Agency. Winnemucca had abandoned his desire to locate in Duck Valley, stating that it was too cold and destitute of fuel, but earnestly begged to be allowed a valley on the lower Owyhee River in which to gather his people. I knew the locality asked for to be a worthless alkaline barren, destitute of grass and timber; and I informed him that the request would not be considered by the department, as it was desired that his people should be cared for and receive the benefits of civilization. I gave him his choice between Pyramid Lake and Malheur as my ultimatum, and he gladly chose the latter.

Winnemucca complained to me that there were no blankets distributed at Malheur last winter; but his most serious objection to this agency is an unshaken belief that "Oits," a subchief now located here, has the power of witchcraft, and that he will practice his evil enchantments until every Piute except his own little band is driven through fear from the agency. Charley Thacher, his interpreter, raised and educated in a white family, partakes of this belief; and knowing the strength of Indian superstition, I considered it useless to argue the point, but assured Winnemucca and Leggins that you would exert your whole power to compel Oits to cease the practice of the "black art," even if it necessitated his removal, as the "dreamer" was removed for the good of Yakama Agency by Father Wilbur.

Mr. Turner was then directed to visit the camp of non-treaty Columbias, under Chief Walsac, who have for several summers caused much annoyance and alarm to the settlers of John Day Valley. In his report of October 4, 1877, he says:

On Bear Creek, one of the northern tributaries of John Day's River, I found seven lodges, with a headman calling himself "Walsuth." This man professed great friendship for the whites, but insisted on his right to do precisely as the whites do, living and going where he pleased. He told me plainly that his people would not go on either Umatilla or Malheur Reservations, preferring to roam over the country gathering their own subsistence. I could only inform these Indians that the government would soon place them on a reservation as a means of safety to themselves, even if it were necessary to use force for that purpose. They promised to consider the matter, but I have no confidence in them, and do not believe their removal can be accomplished without, at least, a show of military force. There is a loud and universal demand among the settlers for the removal of these Indians. They procure liquor, it is thought, usually from Chinese, and when intoxicated behave in a disorderly and threatening manner, and are regarded as a band of horse thieves, stolen animals having frequently been found in their possession. This feeling of hostility is growing among the whites, who complain that the band have no right to any portion of the country adjacent to John Day's Valley, it having belonged to the Putes, and that this non-treaty band are taking advantage of the withdrawal of the Putes by occupying their abandoned territory. During the past season Walsuth and his tribe have pastured thousands of horses on the stock ranges of the settlers, and this practice alone, if persisted in, will eventually end in serious trouble. I would not advise any decisive action at the present time, however, as these Indians are scattered over a large extent of country in small bands. I would suggest that during the winter or in the early spring, when they can all be found on the Columbia River, would be the proper time to treat with and remove them, as at that time their horses will be unfit for a warlike campaign. These Indians will have to be dealt with firmly, and I believe, if convinced that they would be treated well and that a war would be the result of continued refusal to accept a reservation, they could be removed.

In reporting his visit to Chief O-cho-ho, at Surprise Valley, near Camp Bidwell, California, under date November 21, 1877, Mr. Turner says:

After hearing what I had to say, his answer was, substantially, as follows: "I lived at Yainax five years with my people. I was nearly starved the last year I was there. I have been three years off the

reservation. I will never return there. All the officers at Camp Bidwell tell me not to go on a reservation, and white men around here tell me the same. My people live hard in the winter, but we get along without killing any cattle or stealing anything. Long time ago General Crook told me I could live at Warner Valley and here with my people, and I don't want anybody to bother me." The citizens in the immediate vicinity of this camp seem to be averse to the removal of this band of Indians, as their presence is made the pretext for the continuance of a military post at this point; and it is feared that if they are removed the post will be abandoned and a source of revenue taken away from Surprise Valley. In Goose Lake Valley there are serious complaints against this band of Indians, settlers charging them with frequent thefts of cattle and hogs, and there is a general desire that they be kept away. There is no reason why this chief and his people, numbering about 100, should be allowed to go and remain away from their reservation without objections from rightful authority. It is encouraging insubordination in others, demoralizing to themselves, and annoying to settlers. If the department desire it, I can remove all this band to Malheur before spring; but I must have the authority to call for the co-operation of the military authorities, or at least the right to inform these Indians that if they decline friendly overtures and a home on Malheur, they will be placed there by force. Without this authority it is waste of time to talk to O-cho-ho, as he and his people are living a life of lazy vagabondage about the military post and will not willingly give it up. I shall make no further effort with O-cho-ho at present, but will await your instructions when you shall have conferred with the department.

This report was forwarded by me to the honorable Commissioner, under date December 17, 1877, with the following remarks:

In transmitting the inclosed copy of Special Agent Turner's report, I would respectfully direct the attention of the department to that portion in relation to the animus of the settlers in the vicinity of Camp Bidwell. It is identical with that of the settlers in the vicinity of Camp McDermott, Nev. During my visit to that country last spring, which is reported in my letter of April 14, 1877, I found the settlers generally averse to the removal of the Indians, and it was not disguised that their removal would involve the breaking up of the military post at Camp McDermott, which is the principal source of revenue to the valley. In this connection the annual report of this agency by Agent Parish, of date September 7, 1874, foreshadows what has since actually transpired. The rigor of the law requiring Indians to earn their living at agencies is avoided by their flocking to military posts, where no such rule is enforced. About 50 of Winnemucca's people have returned to the reservation this winter, and the balance are believed to be in the vicinity of Camp McDermott, with others, their relatives, who never came to this reservation. * * *

Special Agent Turner has now tracked up the renegades and stragglers of this region pretty thoroughly, and it will be found by his reports that they are not confined to any class in particular, but belong variously to Watsac's band of non-treaty Indians of Priest Rapids, on the Columbia River; to Ochoho's band, formerly of Yainax Subagency; to Eagle Eye's band of Shoshones in Idaho, and to Winnemucca's band in Nevada. None of the Indians now off reservations in this region can be induced to change their roaming habits and the consequent annoyance of settlers without the display of more authority and force than mere words from a special agent. The work performed by Mr. Turner has proved of great benefit in many respects. His intercourse with settlers during the summer has satisfied them that the department is earnestly seeking to rid the country of the dreaded presence of straggling Indians, and he has prepared the minds of the Indians themselves for the lesson which must sooner or later be taught—that they cannot in their present state continue to roam the country at will, in defiance of the wishes of the whites and in disregard of the regulations of the department providing them homes on reservations. * * *

In my special report of January 5, 1878, I informed the department that—

It was not my design to go further with these Indians than to offer them the alternative of a home here, or, refusing this, to require them to remain away and cease their annoyance of our Indians on the reserve and settlers outside. Aside from the drunkenness, theft, minor acts of violence charged against them, they bring large bands of horses to graze upon the country. This is objectionable alike to our Indians and the settlers, who are generally stock raisers. It is deemed proper in this connection to state that these Columbias and Ochoho's band in Warner Valley have reservations nearer to them than this, to which they might be removed. Those gathered in by Mr. Turner were nearer this reservation than any other, and there are still others of the same bands who have not yet come in. I think there are fully 200 Indians belonging to this agency who are yet roaming at large outside the limits of the reserve.

It will be seen that while 139 of the Weisers, who never tried reservation life before, have been brought upon the reservation by Mr. Turner, few of Winnemucca's and none of Ochoho's people, who have formerly been upon reservations, could be induced to return. This presents the question whether it is on account of defects in the reservation system, lack of sufficient means to administer the system, or purely the result of mismanagement by the Indian Bureau and its agents. I am clearly of the opinion that it is the result of a combination of these causes. It is found, upon careful computation, that to administer this agency upon the plan indicated by department regulations for new agencies, giving full rations of subsistence and \$12 a year for clothing to each person, \$6,000 a year for lumber, tools, implements, teams, traveling and incidental expenses and transportation, and \$6,000 for pay of employés, would require \$80,000 per annum, while the amount of the appropriation by Congress for the present fiscal year at this agency is but \$15,000.

From whatever source derived, every agency must have

SUPPLIES.

The yearly supply of clothing, groceries, &c., for this agency was not received until November 14. Though the funds for their purchase and transportation were made available March 3, my first tabular statement of funds received was dated at Washington, September 4, being withheld exactly six months, and was received September 29. The drugs and hospital supplies were bought in San Francisco January 8, and shipped to The Dalles, Oreg., where they remained, on account of deep snow in the

mountains, until May, and were received at the agency upon the day of its abandonment, June 10, or twenty days before the close of the year—the year they were intended to supply. These excessive delays have crippled the efficiency of the service and occasioned much complaint among the Indians. They also complain of the small quantity furnished, and say I do not *ask* for enough or they would be better supplied.

They also complain of the law which requires them to pay for their supplies in

LABOR.

The central thought of my management for two years has been to induce the Indians to labor in civilized pursuits. To accomplish this, I have called to my aid every available expedient. Moral suasion, that demands an outlay of muscular strength, has little effect on the average Piute. Few, I am convinced, could be *persuaded* to labor but for the fear of being denied the beef and flour which constitute their scanty living. I speak of them as a whole. There are honorable exceptions, I am glad to say, who seem to be prompted by the motives which inspire frugal thrift and careful industry. The Indian labor done during the year is 3,882 days, as against 2,617 last year.

The department has encouraged the hope that at no distant day grist and saw mills would be supplied at this agency, thereby taking the initial step toward a self-supporting condition. My plans during the year have uniformly contemplated the early inauguration of this enterprise; and I have used it liberally as an argument to enlist Indians in agricultural pursuits on their own account. Following this idea, I have built a new wagon-road to the nearest timber, upon which 1,150 days' Indian labor have been expended. The road is now practically completed, and good pine timber may be reached within twelve miles of the agency. I have endeavored to inspire the Indians with the hope that upon the completion of this road a saw-mill would be erected, when they could have houses to live in and fences for their small farms.

Circular No. 10, of date March 1, 1878, in relation to Indian labor, has created much uneasiness and some complaints, which are briefly:

- 1st. That issues of beef and flour cannot be long continued by the government.
- 2d. Requiring them to engage in farming without means to put tools in their hands.
- 3d. Reducing wages so low.
- 4th. Requiring them to exchange their ponies for cattle, sheep, and hogs.
- 5th. Forbidding and preventing the sale of ponies to them.
- 6th. Forbidding issues to visiting Indians.

They say, we have no wagons or plows to work with; no fences, no teams to haul fencing with; no houses, no lumber to make houses; we must soon feed ourselves. We have to work *now* for what we get. Farmers and cattle-men pay us \$1 a day for work, and you pay only half as much. We get money when we work away from the agency, and can buy what we like. When we work for you our pay is too little, and only in such articles as you choose to buy for us.

HORSES.

I have discouraged the accumulation of worthless ponies, but, in spite of my efforts the Indian character—full of roaming and exploits in horsemanship—develops their greed for this favorite species of property. All their acquired wealth—women and wampum—is lavished upon the one cherished object of their desire, the horse, in the belief that their spirits hold fellowship through the elysian fields of the happy hunting-grounds. I find them so strongly attached to their horses that their use for that purpose forms their chief objection to farming. Indeed, they are the Indians' highest standard of value.

ENCROACHMENT OF SETTLERS.

I reported, December 18, 1877, "that stock-men are driving cattle to graze upon the lands of this reservation, and the growing dissatisfaction of the Indians resulting from this cause is likely to produce future trouble. Some are so bold that they have even taken up their residence within the limits of the reservation, and make no secret of their intention to occupy and use the land. Without the co-operation of the military at Camp Harney this cannot be prevented."

Lists, forwarded by direction of the department, show that twenty of these trespassers have on the reserve 1,400 horses and 10,839 cattle. I have been informed that orders were issued by the commanding officer at Camp Harney for all these parties to remove their stock, but none have yet complied with the order.

On account of this order for the removal of stock from the reserve, a movement was at once set on foot by the settlers for cutting off the western portion, upon which they are trespassing, and opening it to settlement. It is simply a repetition of the old story, to which nearly every agency might contribute a chapter. To avoid probable unpleasant complications between settlers and Indians, resulting from this conflict of interests, I recommended to the department, on May 20, a proposition from settlers to lease the coveted portion of the reserve for a term of five years, at a rental of \$1,500 a year.

On the 25th of last March, one of our Indians reported to me the story of two

BANNOCKS

who visited the agency from Fort Hall early in the season to tell their grievances. They said there would soon be trouble there. The soldiers had disarmed the Indians and taken their horses; that when grass came the women and children would leave Fort Hall and go to Camas Prairie; that the men would then go to the buffalo country to fight the soldiers. This was reported at once to agent Danilson at Fort Hall. On Sunday, April 14, at the close of our religious services, at which were present over fifty Indians, including all the chiefs except Winnemucca, the interpreter informed me of the alarm and dissatisfaction existing among the Indians present, and that they desired to talk. I heard their stories, and found that their alarm grew out of fresh reports from lately arrived Bannock emissaries. Their greatest fear seemed to be that they were to be disarmed and their ponies taken from them by the soldiers. They accused the interpreter and myself of conspiring against them, and of concealing the true state of affairs in order to deliver them over to the military. I discovered at once that it was the work of Bannock emissaries operating upon them; and informed them that General Crook was then investigating the Fort Hall troubles, and when he got through he would say who were to blame for them; that if they felt in great danger or wanted to make complaint to the government I would invite General Crook to come over while he was near us and examine the situation, and hear their complaints also. The mention of General Crook's name hushed them to silence and ended the conference. No name is better known or more dreaded by them.

This talk was reported fully at the time to the department and to military headquarters at Portland, with the remark that "An outbreak at Fort Hall would cause excitement and enlist sympathy among these Indians."

On the 23d April I reported to military headquarters at Portland: "The Indians belonging to this reservation are collecting here from all parts of the country, and there are now more here than at any time during the winter. It is usual for them to scatter out from the agency in early spring for the purpose of hunting, fishing, and root-digging. This had already begun here, and nearly all the Weisers brought in by special agent Turner had been gone over a month; but they have returned from Idaho bringing with them about 30 more who have never been there before. During the last ten days the number at the agency has increased 163, and they are still coming. This is attributed to the threatened difficulty at Fort Hall. While it is not regarded as indicating hostilities on the part of these people, it must be taken as an index to their fears, and the conviction on their part that there is real trouble abroad in the near future."

On June 2 a courier arrived at the agency *en route* from Fort Boise, with a dispatch for the commanding officer at Camp Harney, and reported the killing one and wounding another citizen by Indians at Camas Prairie. It became apparent, then, that we were upon the eve of an open

INDIAN OUTBREAK.

On the 5th June, at noon, all the working Indians quit and left the agency without giving notice or assigning cause. On the following day the few remaining ones left in like manner, and, as I learned from my interpreter, all the tribes were then congregating at the fish-traps on Main Malheur River, 20 miles from the agency. At the issue of June 1, forty-six Bannocks were present and asked for rations, which were denied under authority of Circular No. 10. Chief Egan begged me to give them rations as visitors, and upon my refusal he divided his own with them and both parties left at once. No hint of their designs, no evidence of hostile intent, no assurances of their probable course of conduct were imparted by any of them prior to their departure. I had issued beef on the 1st, and it was known by them that the 7th would be the next day for slaughtering. As none returned upon that day to butcher, I concluded they were intent upon mischief, and started teams next morning, with all the white families, to the settlements in John Day Valley, 80 miles away. On the 9th I received a dispatch from the commanding officer at Camp Harney, notifying me of rumored depredations by Indians on Malheur River, within 20 miles of the agency. On the 10th I dispatched my clerk, who alone had remained at the agency with me, to turn back some flour teams and the returning agency teams, known to be on their way to the agency, and started myself for Baker City to telegraph the department and military headquarters in relation to the state of affairs. I rode all night and next day, arriving at Baker City on the evening of the 11th, when I made known the abandonment of the agency, and asked for instructions. I also asked for military protection for public property at the agency, which being denied, I waited until the 17th, receiving no reply from the department; and upon the suggestion of the department commander I tried to employ a citizen guard to return with me and my employés to the agency. Finding I could not procure arms for such guard, I abandoned the undertaking. Proceeding

to Camp Harney I learned indirectly that a body of troops under Major Stewart, Fourth United States Artillery, was ordered to occupy the agency and make it a depot for supplies and prisoners. I had informed the military headquarters that there were considerable quantities of beef, flour, and grain at the agency, and offered it for use of the troops, in the hope that they might save it from capture by the hostiles.

I proceeded from Camp Harney toward El Dorado and met Major Stewart's command 20 miles beyond the agency. Returning with the command to the agency, I found all the buildings broken open and the public property badly scattered and damaged. While engaged with Major Stewart in examination of the premises the general commanding arrived, and proceeded at once to give Major Stewart such instructions and to administer to me such a rebuke, by threatening to place me in arrest, as seemed to give free license to the whole command to take such public property as could be found, without any regard to my responsibility, receipts for my protection, or previous inventory of the same. Ineffectual attempts were made to procure the services of a military officer in the making of an inventory; but finding that delay was systematically prolonged until it seemed there would soon be nothing left to invoice, I ordered three of my employes to make a complete inventory under oath, which they did, and I then abandoned all property, agency, and crops to the military.

Proceeding to this place, where my records and office-files had been sent, I found the place in the midst of an excitement which in a few hours culminated in a panic. The hostiles were known to be approaching the valley in great numbers. Their first regular engagement with four companies United States cavalry, near old Camp Curry, only a few days previous, had resulted in a drawn battle; but their punishment was severe. All the troops were in their rear, driving the hostiles into the valley. One small company of citizens from this place had met the hostiles and been driven back with considerable loss. A second party of citizens, going to the rescue of the first, were also driven back and hotly pursued. The arrival of this party was the signal for a panic, which involved the whole settlement. Preparations for defense were hastily made, and all the women and children, to the number of about 400, were put into miners' tunnels near town. This state of alarm continued for two days, until the hostiles had passed through and the advance of the troops reached the valley.

SPOLIATION.

It is found that the destruction of property along the line of their march is fearful. All the stock that fell into their hands was either maimed, slaughtered, or driven away. The losses of four citizens alone were estimated at \$200,000. Two farm-houses were burned, three citizens killed, and five wounded by the hostiles in crossing this valley. Seven houses were burned and six citizens killed in the adjoining settlement, 30 miles north. Eleven citizens were killed by the hostile Bannocks in Idaho, before our people joined them. Though they had been plundering the country from June 7, the first murders known to have been committed by Piutes were on June 17, when they murdered an old man, G. C. Smith, and his son, and burned them in their house, in Happy Valley, at the north end of Stein's Mountain. Up to the present date, according to my best information, 44 citizens and 4 soldiers have been killed by the hostiles, and all who fall into their hands are horribly mutilated.

In a conference with their leader, Chief Egan, he informed Mr. Scott, of Camp Harney, just before the outbreak, that they knew they would be subdued—that there were not enough Indians to whip all the whites—but he would fight as long as he could, and then he thought the Great Father at Washington would give him more supplies, like he did when they quit fighting before, and not try to make his people work.

In conclusion, I would say, if it is still the design of the department to consolidate agencies, the time has arrived for removing these Indians. Banishment from their country is mild punishment for the deeds they are now committing.

Very respectfully, your obedient servant,

W. V. RINEHART,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

OFFICE OF UNITED STATES INDIAN AGENCY,
Toledo, Benton County, Oregon, August 13, 1878.

SIR: In compliance with instructions from your office, I have the honor to submit the following as my third annual report:

During the year a steady general improvement in the Indians has been noticeable.

During last quarter 1877 and first quarter 1878, owing to lack of funds, we were unable to render them the material aid they much needed, so that nearly all the improvements they have made on their farms have been made during second and third quarters 1878.

Since March 30 comfortable lumber houses and six good barns have been erected by and for the Indians, most of which are completed and ready for occupancy, if not already occupied. Nearly all the work required to manufacture the lumber and erect these houses has been done by Indians. During a part of the months of May and June our steam saw-mill was run, cutting more than 10,000 feet of lumber per day, and the only white men employed about the mill were a head sawyer and engineer. Not an accident worthy of notice occurred, nor was there an angry or profane word heard during the time.

The seeds issued to them last spring were planted, and, with few exceptions, their fields and gardens have been carefully tended. At a council held by them this summer there were more than 30 Indians counted who had this year, for the first time in their lives, sown a crop of wheat. They have shown an earnestness in the work of improving their farms which might be profitably imitated by many of the white persons who ridicule the idea that Indians can be civilized.

No community in Oregon of like number has been more quiet and orderly than they, when not disturbed by whites or whisky introduced among them by whites. Only in one instance have we found an Indian on the reserve who was under the influence of whisky. This individual was at once put into the guard-house to become sober. All the disturbances which have occurred have had their origin off the reservation, and in the settlement of all such I had the assistance of the Christian Indians, who are ever ready to do all in their power to assist us in inducing their friends and neighbors to adopt the laws and customs of civilization.

Grain crops, now being harvested, look remarkably well. Quite a number of Indians will raise a surplus of wheat and oats, though in the aggregate there will not be a sufficient quantity to supply the wants of all. For the first time within five years, we are now likely to escape the potato-rot. Early varieties are already ripe and late ones more than half grown, with, as yet, no indications of blight. The Indians are greatly encouraged by this, and in another year, provided with a sufficient quantity of seed, will produce for themselves a much greater proportion of their own subsistence than ever before.

The improvements made on government account have been confined to repairing the old buildings, so as to make them serviceable a little longer, and in building an extension and an addition to the school-house. The latter is in a good condition now, and is well filled with pupils every day.

I desire to urge upon you the necessity of permanently establishing a boarding-school for the benefit of the Indian children of this agency. While the day-school is doing much for them, it is by no means all they should have. The children who live many miles distant from the agency should be brought here and placed under the direction of a teacher and matron. The daily school lunch and the small quantity of clothing (\$50 worth) has been a great benefit to the school. Though the latter had to be divided among more than 60 pupils, it has done much to encourage attendance. Four times the quantity could have been issued to them without injury; and with this amount (\$200) we could have done more in the way of making them comfortable.

The dreamers, who have at times seemed to exercise considerable influence over the wildest of the Indians, have about lost their power over them. Comparatively few believe in their old medicine-men, and this class and their former chiefs are the poorest of the people now. In fact, the Indians are fast putting away their old customs and adopting the customs of the whites. Very little fishing or hunting is done by them. Could the present policy be continued for a few years more, and the agency furnished with means necessary to keep the Indians at work and to properly instruct and educate the children, the Indian problem would be solved so far as the Indians of Siletz are concerned, they would be able to take care of themselves.

In relation to the transfer of the Indians of this reserve to the Grand Ronde Agency, of which there has been so much said in and out of Congress, I would simply ask if, after an expenditure of several thousand dollars to build mills for the benefit of the 1,085 Indians belonging here, just when these mills are completed and in running order, the Indians making every effort in their power to make progress for themselves, would it be just to even ask them to remove to another country? For more than twenty years the government, through their agents, has been promising them security in their homes; and during the same time their original reserve has melted away from a length of 120 miles by an average width of 18 miles, and containing 1,324,400 acres, to a length of 24 miles and an average width of 15 miles, containing 223,000 acres. Not more than 23,000 acres may be termed agricultural land, the remainder being rugged mountains. They were promised when they gave up their original lands that they should be permanently located here, and not until 1,160,000 acres of this reserve was taken away from them did Congress pass a law looking to the permanency of the reserve. When this law was passed and approved by the President, it was hoped that the Indians were permanently secured in the possession of their lands. Now to remove them again would be simply legalized robbery.

In reference to the transfer of the Indians to the War Department, I have to say,

that, while I have all confidence in the Army officers on this coast, I cannot see that any change in the direction indicated would be beneficial to the interests of the government or the Indians belonging to this agency. The Indians are themselves opposed to any change by which they would be deprived of the religious instruction they have had for a few years past.

The statistical reports accompanying this will give you the farther information required.

Very respectfully, your obedient servant,

WILLIAM BAGLEY,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

UMATILLA INDIAN AGENCY,
Oregon, August 23, 1878.

SIR: I have the honor to submit the following annual report of this agency for the past fiscal year, in accordance with instructions contained in your circular letter under date of July 1st, 1878.

The number of Indians on the reservation, according to the census taken last May, is as follows:

Tribes.	Men.	Women.	Boys.	Girls.	Total.
Walla Walla	87	110	39	54	290
Cayuse	106	126	73	78	383
Umatilla	50	78	43	29	200
Columbia River Indians	46	50	24	30	150
Total	289	364	179	191	1,023

The Columbia River Indians indicated above came on the reservation over a year ago. They refused to be enrolled as permanent residents, on the ground that they only came here to await the decision of the government in relation to themselves and the other Columbia and Snake River Indians. They have remained on the reservation most of the time since their arrival and have fenced about 150 acres in 12 fields, besides planting about 100 acres in common with some Umatilla Indians. They are very poor, having only about 100 head of Cayuse horses, and know little or nothing about agricultural pursuits.

The principal wealth of these Indians consists in stock, the care of which is congenial to their roving disposition, and for which purpose the reservation is well adapted, the mildness of the winters making it unnecessary to feed, as a general thing. The aggregate amount of stock belonging to them, without including that of the Columbia Rivers', is 22,315 head, for which they find a ready sale at remunerative prices to parties who purchase in this section every spring for the Eastern markets. Nearly four-fifths of the stock belongs to the Cayuses, who, as a tribe, are more energetic than the others.

They all engage more or less extensively in agricultural pursuits, many of them raising a surplus of wheat, oats, barley, and hay, which they dispose of at the towns in the vicinity of the reservation.

The hostile Bannocks, Snakes, and Piutes made a descent on the reservation last July, and ran off a large number of horses and cattle, and burned four houses and barns, besides destroying most of the crops. The agency farm and four other large fields in the vicinity were destroyed by stock belonging to the reservation Indians, who encamped close to the agency during the trouble and turned their stock into the fields, being afraid to let them range toward the mountains lest the hostiles should capture them. Some of the most industrious and worthy Indians on the reservation have been reduced from comfortable circumstances to poverty by their losses. One Indian, named Tem-tem-mit-si, sustained the heaviest losses, having a good frame house a story and a half high, and a barn containing farming utensils, harness, &c., burned, and about 1,000 head of cattle out of a band of 1,200 killed or dispersed, besides the loss of many of his best horses. Three other houses, worth \$800 or \$1,000 each, two of which were built this year, and three barns containing farming utensils, were also burned, with all their contents. It is necessary to rebuild these houses as soon as possible, and in order to meet this extra demand for lumber, the saw-mill must be run to its full capacity during the balance of the year.

Many of the Indians were in the mountains and at the fisheries, laying in their usual supply of fish and roots when the outbreak occurred. In the hurry and excitement

attending their return to the agency, they lost most of their supplies; and this, with the loss of their crops and stock, left many of them nearly destitute, and much suffering would have ensued but for the prompt assistance received from the department.

The Indians had a larger acreage under cultivation than at any previous year to my knowledge; and although the season was too dry to raise an average crop, they would have at least double the amount raised during any previous year, but for the depredations of the hostiles and the animosity of the whites against any Indians seen in the vicinity of the settlements. They were afraid to venture out in the direction of Wild Horse Creek or Pendleton to gather their crops until after the greater portion of it was shed and destroyed by stock breaking in.

I am unable to give the exact amount of grain harvested, but from observation would estimate it at about 500 bushels, including wheat, oats, and barley. They have saved about 40 tons of hay and about 20 acres of vegetables—potatoes, corn, onions, beans, pumpkins, &c.

The saw-mill has turned out 104,900 feet of lumber during the year, 24,638 feet of which is still on hand. A portion of that which is expended was given to the Indians to build barns and sheds. The remainder was used in building 4 houses, in repairing houses, and in the shop; making doors, windows, boxes, coffins, and farming implements, and the numerous other articles and repairs needed for the agency and the Indians. Lumber for the erection of three new houses, one of which is under way, has been hauled, and the demand for houses is greater than can be supplied during the next two years.

There is one day-school at the agency, with an average attendance of 28 scholars. Some of the larger children read English well, and most of them show a decided aptness in writing, their copy-books displaying specimens of penmanship which for steadiness of hand and neatness would do credit to any children of their age. The Indian residences are scattered over the reservation from 1 to 18 miles from the agency, making it impossible for many of the children to attend day-school. A boarding-school would obviate this difficulty, and better results could be expected from a system where the children would be constantly under the eyes of the teacher and away from influences which have a tendency to counteract the habits of study and obedience which are enforced during school hours.

The moral tone of these Indians is improving, for which much credit is due to Rev. Father Conrardy, who is untiring in his efforts to win them from their pagan belief, which unfortunately has a strong foothold among a certain class of them, as is evidenced by the practice of polygamy and kindred crimes, which are still common. The number of practical Christians among them at the present time is 250, being a large increase over former years.

Drunkenness is still very common among a class of young men here, who manage to get all the whisky they want in spite of my best efforts to prevent it. The law making it a crime for a white man to sell liquor to an Indian, or to introduce it into the Indian country, and allowing an Indian to do either with impunity, appears to me to be one-sided. If the Indians were held accountable as well as the whites, I could easily make temperance men of them; but under the present circumstances they drink with impunity, and after once getting liquor from a white man they compel him to furnish more at their pleasure, under threats of reporting him to the authorities.

There is an uneasy feeling manifested among these Indians, and an anxiety to know what the policy of the government will be toward them upon the expiration of the treaty next year. They are aware that the press and people of this section of the country are clamorous for their removal, and charge them with being in sympathy with the hostiles, notwithstanding the fact of their having killed Eigan, the war chief of the hostiles, and 25 others, and having captured 35 women and children and two bands of horses. In fact they showed their animosity to the hostiles by doing more damage to them while in the vicinity of the reservation than was done by all the troops that fought them during the campaign. If, on the contrary, they had sided in with them, their example would have been followed by the Columbia Rivers and the other renegade Indians of Eastern Oregon, Washington Territory, and Idaho, and a savage outbreak would have been the result, that would have devastated this whole section of country, in spite of the best efforts of the force of troops that could have been brought against them. The men who rail against them do not wish to take these facts into consideration, for the simple reason that they wish to be rid of the Indians, and have the reservation thrown open for settlement. This feeling between the Indians and whites, if it continues, will lead to further trouble in the future, unless a military force is left here to protect the Indians until the question whether they are to remain here or not is definitely settled.

I respectfully submit herewith the accompanying statistics.

Respectfully submitted.

N. A. CORNOYER.

Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS;

WARM SPRINGS AGENCY, OREGON,
August 17, 1878.

SIR: I have the honor to submit herewith my annual report for the year ending August 17, 1878, and the statistics accompanying the same.

POPULATION.

It is a much more difficult matter to arrive at an exact count as to numbers now than it was years ago when annuities were issued, as then every family was present or represented at the general issue. The census I have lately taken shows but little change from the numbers given in the census of 1876, and which formed the basis of my last year's report. There have been additions lately to the *Warm Springs* and *Teninoes* from the "roving bands," made up of Indians who left this reservation some nine years ago. They have always refused to return until the present Indian war compelled them to leave their accustomed haunts and come on to the reservation, as the only safe place they could find, and where I hope they will be willing to remain in the future. This addition of numbers, however, does not more than compensate for the loss in the tribe of the *Wascoes*, caused by the removal of a number of them to the *Simcoe* Reservation, and a few for some time absent in the *Willamette Valley*, the *Dalles*, and other places, where they have been and are now working for our citizens and giving good satisfaction. The present census gives of adults, males 155, females 171; of children, males 108, females 66; total, 500.

BIRTHS AND MORTALITY.

There have been 16 deaths reported during the year, many of them, however, being old people. On the other hand, but 15 births have been reported, or that we have had knowledge of. There have no doubt been a number unknown to us, as it is rarely that we are informed of a birth, and the physician is seldom called in to render assistance. It is still my belief that an exact count of the births and deaths among the *Wascoes* and *Teninoes* would show them to be slowly increasing.

HEALTH AND SICKNESS.

The general health has been much better than it was a year ago. During the spring months there were a number of severe cases of remittent fever, but owing to their treatment by a skillful physician they all recovered, since which there have been no very serious cases of an epidemic nature. While a good many have applied for treatment, they have mainly been cases of a mild character, requiring but simple treatment or remedies. I have been fortunate during the year in securing good physicians, and having had a much better supply of medicines than last season, have had such good success as to induce the Indians to quite abandon their Indian modes of doctoring, and Indian doctors or "medicine-men."

MODES OF BURIAL.

The *Wascoes* and *Teninoes* invariably have coffins made and bring their dead to our church for funeral services, from whence they are taken to their burial ground, about one mile northwest of the agency. It has been their custom to take up, reclothe, and rebury their dead at least twice a year for the first year or two after death, but owing to my efforts, and more latterly of the Rev. Fee, in which we have shown them their folly, and the injury to themselves they were producing in the way of health, they have, I am glad to say, abandoned the practice. The *Warm Springs* nearly all cling to their old modes of burial, the outgrowth of old superstitious notions, by which they were taught to believe the spirits of the departed did not rest in peace unless their bodies were well cared for and comfortably clad. Among all the Indians, the old traditions and superstitions are so inwrought into their very being as to be most difficult to eradicate.

CRIMES AND MISDEMEANORS.

It gives me pleasure to be able to say that the calendar of crime here has been very light, there having been but one case which was punished by civil law, that of a larceny from a dwelling. The trials conducted by the Indian council here have been mainly troubles of a domestic nature, which have been nearly always satisfactorily settled, without the separation of the parties. In cases of theft or lawless conduct, fines have been imposed, and the proceeds taken to indemnify the aggrieved parties. Indian fines are usually paid in horses.

THE INDIAN WAR.

As a wrong impression seems to have gone out in regard to the stand taken by these Indians with reference to the *Snake* and *Bannock* war, I will give a brief account of what actually transpired here. When the war first broke out General Howard sent me a dispatch asking if I could furnish him some Indian scouts, not less than ten being asked for. Many of my Indians had gone off hunting, fishing, &c., and had to be sent

after. After a few days' delay a council was finally held, attended by nearly all the principal headmen, including the head chief. I made known to them the request made for a number of them to assist as scouts in the Bannock war, and urged them strongly to go, as also did my employés and the Rev. Fee; but with few exceptions they took strong grounds against going.

The principal reason given was that they were now living in peace with all mankind; that I had taught them that it was wrong to fight, and they had abandoned it; and, besides, a missionary had come to teach them about God's law, and now to go to this war they would have to go back and assume the old-time character, have their war dance, and be again a savage, a character they were trying to throw off. Besides it was near harvest-time, and if they left they would have to hire some one to harvest their crops for them. They also called up their experience in the Modoc war, where they rendered faithful service, for which they received but little pay, and the relatives of those braves who were killed had never received pensions, though such promises were made to them when they enlisted, and the question here was asked, "If we go to this war and some of us get killed who will provide for our wives and children?" It was also, they said, a long distance off to the seat of the war, and they were unwilling to go so far from home.

I give *their* reasons, since their refusal has been the occasion for many false and injurious rumors, which have been a matter of grief to them. The principal trouble, to my mind, was in General Howard not sending definite terms as to pay, &c. He merely stated that he wanted them as scouts, and they to furnish their own horses. One Indian having stated that he received \$100 per month as scout in the Modoc war, it was taken up by others as the price to be demanded. They did not want to go less than 40 strong, and so they informed me they would make up a company of that number and go for the above wages and furnish their own horses. To this proposition answer was returned from headquarters that no terms could be made, "except to give them pay and supplies of soldiers." And here the matter rested, though by this time a company could have been raised with pay at \$40 per month, and furnish their own horses and equipage. Their conduct all along has given the lie to all that has been said against them, and proves that the efforts made to civilize and Christianize them have not been in vain, and makes me still more proud of them.

HAY AND GRAIN CROPS.

These have been much better than they were last year. The rain-fall during the winter and early spring was unusually large, and so early-sown grain has turned out well, as also has most of the hay crop. Since the 1st of June it has been very dry, though not excessively hot, yet the drought has affected the late-sown grain so that in some cases it will be an almost entire failure as a crop.

SUPPLIES OF FOOD.

I have some fears that the supplies of food will be short of actual wants ere another crop season comes around, since on account of the Indian war nearly all the Indians, but more especially the "wild" ones, have been prevented from laying in their usual supplies of roots, fish, &c., and have had to subsist on food raised on the reservation, of which there will be but little if any surplus by those raising grain to spare from their own needs. Fortunately the late run of the salmon was the best, and considerable quantities have been put up, both of dried and salted. Lately I have given passes to many of them to go into the Cascade Mountains to hunt and pick berries. Their favorite hunting grounds are mainly in the Blue Mountains, but I consider it unsafe for them to go even near the settlements, and will not allow them to go across the Des Chutes River except to Prineville, where they go to sell vegetables. I hope this experience will teach all the Indians the necessity of depending upon their own soil, and by labor on it to produce their supplies of food.

THE DAY-SCHOOL.

This has been quite successful, but I hope will be much more so when we carry out our plans for boarding the scholars, or at least part of them, and all to the extent of a noonday meal.

MORAL AND RELIGIOUS.

The standard of morals is steadily advancing. The church here is increasing in membership, 19 having united at our communion service in June last. It will be an evil day for these Indians should the military ever again take charge here, judging by past experience. My term of office has nearly expired, so that to me personally it makes but little difference whether a transfer is made or not; but the future best interests of these Indians prompts me to strongly protest against it.

THE FUTURE.

These Indians are advancing. Many propose in a year or two to become citizens. They have a good location with all the natural resources necessary to supply all their

wants when properly developed. Here may they be allowed to remain. They are contented, happy, and quite prosperous; can never be as happy elsewhere. This is probably my last annual report. My last plea is that these Indians may not be removed nor come under military rule.

Very respectfully, your obedient servant,

JOHN SMITH,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

UINTAH VALLEY AGENCY, UTAH,
August 15, 1878.

SIR: In accordance with directions contained in department circular No. 22, of July 1, 1878, I have the honor to submit the following as my eighth annual report of the affairs pertaining to the agency under my charge:

I am pleased to be able to report, all things considered, a satisfactory degree of progress and improvement, both as to the temper and conduct of our Indians, and in their agricultural and civilizing pursuits. The number of Indians making this agency their regular home and properly coming under its direct control and influence is 430. This, of course, does not include those who occasionally visit us from Captain Joe's, Kenosh's, and other small bands which have had at different times a more or less intimate connection with it.

THEIR FARMING OPERATIONS.

Considering the difficulties with which they have had to contend, I think they are fairly entitled to more credit than in any former year, for though the statistics may not show an increase in the products of their labor, they have been produced under greater discouragements and disadvantages and with more self-denial than usual. Let me allude to some of these. Last year they had an unusually fine prospect for a large yield of wheat. When we came to cut and thresh it a very large proportion, nearly one-half, was smut, so that instead of having about 2,000 bushels, as my employes think they should have had, little over one-half of that amount was obtained, and that of an inferior quality, which was really not fit for seed. In anticipation of a fine crop of wheat I estimated for only 10,000 pounds of flour for their annual supply, which was entirely inadequate. I have calculated that after saving enough wheat to sow, the balance did not yield more than 20,000 pounds of flour, which made the whole ration of flour, taking the whole number of Indians, less than one-fifth pound per day. Not only did they have insufficient flour, but necessity compelled them to use their wheat for food, and thus their seed this spring was limited. After I learned the condition of their wheat, I endeavored to procure more flour for them, but it was too late; no funds were available. Under these circumstances, I think their estimated crop of wheat this year, 1,400 bushels, proves their claim to unusual perseverance and industry. They had also last year a good crop of potatoes, but from the want of proper care during the winter many were frozen, and thus their supply for planting was insufficient. The supply of beef, 46,000 pounds net, was utterly inadequate, affording less than one-third of a pound per day, taking the whole number of Indians. Of course, under these circumstances, they were compelled to spend much time in hunting game and procuring the necessities of life away from the agency. Many of them went to the settlements, purchased, hauled, and packed in flour and other provisions. I am surprised, as I think others would be if they knew the whole situation, at the patience, perseverance, and even cheerfulness with which they have pursued their farming operations and maintained their good nature and conduct. I respectfully refer to my statistical report herewith for the results in corroboration of what I claim for my Indians. Their crops are being harvested, and from the use of vitriol on their seed, the wheat is almost entirely free from smut. When asked about their wheat, "waino" good is the almost universal reply; and from their own and what has been purchased for them, I trust they will not have to starve and labor as they have done part of the year just past.

INDIAN STOCK AND OTHER PROPERTY.

There is a gradual increase of cattle, horses, other animals, and property, and this increase is becoming more generally distributed than formerly. Statistics recently obtained give 876 horses, among which are nine span which they use more or less in farming operations; 773 cattle, including 14 yoke of oxen used also in farm work, hauling fencing, firewood, &c.; 40 goats and about the same number of hogs. The latter are found to be very troublesome, as it is impossible to fence against them; hence I have discouraged the acquisition of more than they can keep up and feed. Five wagons, two new ones and three second-hand ones, have been purchased by the Indians, and it is not unusual to see an Indian driving his own team and covered wagon with his family

like an "American" or "Mormon." Their style of farming is gradually improving, and the fencing, corrals, and other improvements are of a more permanent character. There is a growing desire for houses, stoves and other furniture, which we are trying to increase and gratify as fast as possible, letting it be distinctly understood that those who help themselves most will be first served.

EVIDENCES OF PROGRESS IN CIVILIZATION.

Most, if not all, that has hereinbefore been stated manifestly gives evidence of progress in the right direction, and would seem to supersede more minute specifications. At the risk, however, of being considered prolix, I will enumerate some particulars which, though small in themselves, yet, taken in connection with others, may serve as waymarks along their onward, and, as I think, though slow, upward progress. What was said in my last annual report may be repeated with increased emphasis. The past year has been distinguished on the part of our Indians by an unusual kindness of manner and respectful treatment, not only of myself, but of all persons belonging to the agency; by a willingness to receive and follow instructions and advice; by refraining generally from their ordinary work and on the part of many, a respectful and even serious attendance upon our religious services on the Sabbath; by an almost entire abstinence from all vulgar or profane language; indeed, in this respect, their example is worthy of imitation by many who have enjoyed the benefits of a Christian civilization; by their growing desire for houses and the furniture necessary for use and comfort; by the most general desire for and adoption of citizens' dress; their disposition to use their own means and exertions to procure necessary subsistence and comforts for themselves and their families; by their giving up their medicine-men in many cases, and applying to us for aid and comfort in sickness and distress; their abandonment almost entirely, no case having occurred this year, of killing horses and other animals on the death of relatives or friends; and finally, I would urge the spirit and perseverance with which they meet difficulties and discouragements as evidence of their advancement. Their health will, I think, compare favorably with any former year. Though there has been much complaining and a few deaths, I think not more, if so many, as would occur among the same number of whites; certainly not more than may be expected, considering the want of a skillful physician and hospital accommodations. Chronic diseases are the most common, arising from former immoral practices, their most painful and discouraging features showing themselves in the death of children.

SCHOOL, MISSIONS, AND RELIGIOUS TRAINING.

We had a school for about eight months, which during a part of that time did as well as we could expect, but when very cold, stormy, and bad weather set in, the distance of their houses and lodges from the agency being considerable (from three to six miles), the children could not attend. The teacher after laboring about eight months, at a cost to the government of about \$350, resigned. Though all we hoped for was not accomplished, yet we do not consider the labor and expense without results, as, apart from the immediate benefits to the pupils, the general influence of the teacher and the school is manifest upon the tribe generally. As I have stated in former reports, particularly in a special one on this subject, the highest and best results can only be secured by an industrial boarding-school where the pupils of both sexes can be brought under the constant supervision of the teacher, and kept from the demoralizing influences in their lodges. I sincerely hope, for the sake at least of the young of this band of Indians, that greater facilities may be afforded for their moral training. The Indians generally are in favor of the school being kept up, but do not, of course, appreciate the importance of exerting themselves or compelling their children to attend regularly. As means have been provided, I have determined to reappoint the teacher and make another effort to secure better results with the limited facilities available.

No missionary or religious instruction has ever been provided by the church which has the nominal control in these matters, apart from the efforts of the agent and employés and their families. Religious service is held every Sabbath and the Indians encouraged to attend, which some of them do, but, of course, our services are little understood, and of comparatively little value to them.

POLICE AND APPRENTICES.

By an act of the last Congress, and instructions from the department, an Indian police has just been established and partially entered upon its duties. It took our Indians some time to make up their minds relative to this matter, and I desired that they should understand it as fully as possible, and go into it with their own consent. I gave them ample time after its presentation to them to make up their minds on the subject. They finally concluded it was a good thing and adopted it. Some difficulty was met in the selection of those most suitable for the service, some of those best qualified not being willing to give up their farming operations for the service. Still we were able, as we think, to get suitable men, who seem to enter upon their duties with considerable zeal, and we hope good results will be secured.

Provision also was made and instructions issued relative to the appointment and pay of two apprentices to each mechanic. This, as was the matter of police, is new, and it is difficult to put it in operation. As there is, with us, no compelling power, it is difficult to find and induce to serve those who are most suitable for the positions. Still the matter is before the Indians, and we hope to be able ere long to have this desirable measure adopted.

DISCOURAGEMENTS AND DIFFICULTIES.

First, to the Indians: One great source of discouragement and uneasiness is the constant apprehension that some radical change, either in their location or in the administration of their affairs, will take place, and thus interfere with all their industrial pursuits. They are afraid that this reservation will be thrown open to white settlers, they be removed to some other place, and thus lose all their labor. They have for two years heard exaggerated reports on this subject, hence their uneasiness is not strange or unnatural. My own opinion is that any such change would work great injury and injustice to these Indians, yet I know that many in this Territory would do anything to bring it about. Should such change be made without full and ample provision and compensation, I should blush for the honor and good faith of my beloved country, which would thus blight the struggling hopes and prospects of its weak and dependent wards.

Within a short time, by direction of the department, they have been called on to decide upon the matter of the transfer of the Indian Bureau to the War Department. After as full and unbiased presentation of the matter to them as possible, and a full consideration of it among themselves, they, with great unanimity and some feeling on the subject, expressed their decided preference for the continuance of the present policy and relations with the Interior Department. They have no particular dislike to soldiers, but prefer to have them at a distance, and fear that any change would interfere with their farming operations and in some way cause trouble.

Second, to the agent: I have at various times endeavored to give the department and others some adequate idea of the discouragements and disadvantages under which we labor in the satisfactory and successful conduct of the affairs of this agency, but I fear have only partially succeeded. Apart from the inadequacy of subsistence hereinbefore partially alluded to, and the want of more teams, wagons, harness, and farming implements, making it almost impossible so to distribute those we have as to give satisfaction and secure the best results in industrial pursuits, the situation of this agency, about 200 miles from Salt Lake City, our base of supplies and post-office, with a road bad at any time, almost beyond comparison, and for several months of the year blocked by snow, and for several more impassable from high waters, thus rendering the reception of any supplies, except for three or four months of the year, impracticable, and the reception and transmission of mail and the transaction of business expensive, precarious, and unsatisfactory, and subjecting the agent to much anxiety and unusual labor and exposure—all this and much more that might be specified present difficulties and discouragements incident to the situation, which none but one who has to meet them can fully appreciate. I, of course, cannot tell, but I doubt if any agency in the service has more inconveniences incident to its management, and yet I cannot but congratulate myself upon the good conduct and industrial progress of my Indians, notwithstanding all, and at least partial, success in the conduct of this agency.

The want of a trading-post might also be mentioned as a source of inconvenience and loss to the Indians, and annoyance to the agent, as it necessitates the absence of the Indians from the reservation, to dispose of their products, and procure necessary supplies. It also affords some of them an opportunity for procuring and bringing in intoxicating liquor, which they do not fail to embrace. This has become a growing evil, but we hope by the aid of our police to break it up and even procure the arrest and conviction of those who sell it to them. Government farming is done only so far as is necessary to raise subsistence and forage for government animals. I fully adopt the view expressed in a department circular, that a number of even rude Indian farms is better evidence of successful management than a fine model government farm.

IMPROVEMENTS.

By the labors of employés and assistance of Indians, we have made several necessary repairs and improvements at the agency, and have built several Indians' houses, for which there is a growing desire.

In conclusion, I would respectfully refer to the concluding remarks in my last annual report as to my views on the matter therein contained.

Respectfully submitted by—

J. J. CRITCHLOW,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

FORT COLVILLE INDIAN AGENCY,
Fort Colville, Wash., August 8, 1878.

SIR: In submitting my sixth annual report of the condition of the Indian service at this agency, I have the honor to state that never have the Indians committed to my care been on more amicable terms with the whites than at present, and the gratifying evidence they give of a desire to continue that relation, and to improve their own condition by engaging in civilized pursuits, is highly encouraging. Although they feel that they have much to discourage them in the unsatisfactory result of the council at Spokane Falls, last summer, in the gradual failure of the salmon fisheries, upon which they rely so much for support, the greater scarcity of game, the low price of furs and peltries, the settling up of the country by the whites, and the uncertain tenure by which they retain their homes, together with the doubt they are in as regards the future action of the government toward them, they evince no hostile spirit, and while some of the tribes belonging to the neighboring reservations continue to menace the peace of the whole frontier, no crime has been laid to the charge of these Indians.

The progress they have made in agricultural pursuits exceeds that of any former year, and is the subject of general remark by all who know them. They seem, at last, to be impressed with the conviction that the surest way of retaining their country is to live in it and cultivate the land, finding that by so doing they can have their homes and a better living than in any other way. The number of farms taken, houses built, and acres brought under cultivation are more than doubled since my last annual report, and from the present advanced state of their crops, it is safe to estimate their wheat at 12,000 bushels; oats, at 3,500 bushels; corn, at 300 bushels; vegetables, at 2,000 bushels; all of this has been attained mainly through their individual efforts. The distribution of the limited amount of seeds and agricultural implements purchased with what remained of the \$500 allowed for the relief of the destitute Indians of the agency, while contributing but little to the general result, did much to encourage them.

It is not only in laboring for themselves that their industry and application is noticeable, but also in the increased demand for their services by farmers and others. So necessary have they become to the settlers that it is a matter of common remark, "If the Indians leave the valley, we will have to leave, as we cannot get along without their labor." They are found behind nearly every plow, and in every harvest-field, and it would seem impossible to put in or take off a crop without their assistance. During the year the amount of cord-wood cut by them will not fall short of a thousand cords. In point of civilization, with all that the term implies, these Indians will compare favorably with any of the tribes in the Northwest. So self-reliant are they, that could they once feel secure in their homes, and the same assistance in establishing themselves be extended to them that is afforded to the surrounding agencies, their welfare would be greatly promoted, and a permanent peace assured.

As many of the Indians belonging to this agency have improved farms outside of the reservation limits, and do not, as yet, seem prepared to avail themselves of the privileges of citizenship, it would seem desirable that some law should be enacted by which they can retain their places without being subject to formalities of law, other than continued possession and cultivation for a limited time, say five years, when they would probably see the advantages of becoming citizens or removing to the reservation. Until some such provision is made, a fruitful source of trouble will continue to exist.

The Cœur d'Aléne Indians belonging to this agency, numbering 450, deserve more than a passing notice. They have a reservation of their own, upon which they are all living, and are working with earnestness to secure themselves permanent homes. They have over one hundred farms, not mere patches, but many of them fenced and cultivated in a manner that would be creditable to any white settlement, and they produce more, in proportion to their numbers, than any tribe of the agency. They continue to evince the same good-will and friendliness to the whites that was shown by them last year, during the Indian hostilities, and are certainly entitled to some consideration at the hands of the government. They have built a school-house for themselves, and the \$1,000 appropriated for the support of schools will aid them in obtaining teachers, but is scarcely sufficient to establish the school upon a proper basis. While they ask but little else of the government than to be made secure in the possession of their lands, justice seems to require that the same assistance should be given them in the way of shops, mills, and schools, as is allowed upon other reservations.

The Jesuit Fathers, who have been resident missionaries among them for more than thirty years, laboring indefatigably for their spiritual welfare, accompanied them upon their removal, and have rendered them efficient aid in establishing themselves upon their present reservation. The boarding-school, conducted by the Sisters of Charity during the past year, under contract between the Hon. Commissioner of Indian Affairs and the Rev. J. B. A. Brouillet, has been carried on with great regularity, and with satisfactory results. The advantages conferred upon the Indians by the school are

continually manifest, and are particularly noticeable in the conduct and bearing of those who have been educated there, as compared with the many who could not avail themselves of it. The habits of application acquired, and the careful moral training that they have received, enable them to discharge the ordinary duties of civilized life both creditably and profitably. Were the capacity of the school enlarged or others established, there would be no lack of scholars, so impressed are the Indians with the benefits their children derive from the tuition they receive.

The missionary services rendered to the Indians of this agency by the Jesuit Fathers, whose head mission is near this place, are attended by the most encouraging results, as is evidenced by the devout bearing of their large congregations, and the fidelity with which their teachings are adhered to. The Rev. H. T. Cowley is also laboring with zeal for the spiritual welfare of the Protestant Spokans, and is meeting with much success in inducing that people to embrace a Christian life. The excellent supply of medicines received last fall has been of incalculable benefit, and the recent increase of salary will now admit of a resident physician.

There being no flour-mill belonging to the agency, the miller was induced to do the work at his own mill for the salary allowed, and the amount of wheat ground for the Indians has been greatly in excess of what was anticipated on his first employment. The Indians, finding that they could get their wheat ground without paying for it, willingly worked for wheat when they could not obtain money. It has also been an incentive to many to engage in farming.

The blacksmith has been taxed to his utmost capacity, and the authority to employ an additional blacksmith, together with an agency farmer and clerk, will result in much good to the service.

In my previous annual reports and at other times I have frequently alluded to the want of buildings at this agency, and forwarded estimates for that purpose. Under date of September 26, 1877, I was informed that the sum of \$8,800 for building purposes at this agency had been embraced in the regular annual estimate of the Indian Office, for funds for the Indian service, to be submitted for the action of Congress at its next session; if the sum estimated for has been allowed, I would earnestly recommend that it be made immediately available.

The statistical information in regard to the agency, called for in circular letter of July 1, 1878, is herewith inclosed.

Very respectfully, your obedient servant,

JOHN A. SIMMS,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

NEAH BAY INDIAN AGENCY, WASH., August 5, 1878.

SIR: I have the honor to submit my first annual report of this agency:

The Indians under my charge are the *Makahs* and the *Quillehutes*, the first living on the latter just beyond the limits of the reservation. The whole of these Indians are fishermen, and I presume have ever been so; their wants are few and easily satisfied; their mode of living simple; fish, eaten raw, or prepared in the most crude manner, with whale-oil, being their chief food. There are, however, some few near the agency, disposed to so far adopt the habits of the whites as to make some show of cleanliness in the matter of cooking and eating, but with the majority, beyond at rare intervals a little hard bread or molasses, fish diet is the only one. They are naturally a dirty people, and constant supervision is required to induce them to make some show of cleanliness.

I am happy to state that a very friendly feeling exists between these Indians and the few white settlers of the vicinity, and this may in a great measure be attributable to the behavior of the whites. Their intimacy with the native women is not great, and fair dealing appears to have become an understood thing on both sides. There are, of course, isolated cases of differences between the two races, but such cases are neither very frequent nor very grievous, and have been easily adjusted. Further, these Indians are very temperate. We have no whisky element here, and I am of opinion that with this element among us, these people would not become very much addicted to the vice.

Polygamy is not permitted, but adultery is frequent, and the chief offenses are those arising from intercourse with women the property of other men. Wives are purchased, and, as is the case with most Indian tribes, they are the slaves of their lords. The men are moderately industrious, and are daring and fearless on the water. They are all thoroughly imbrued with superstition, believing in ghosts and gnomes, and their medicine-men have great control over them. To attempt civilization with the older members of the tribes would, I fancy, be useless. The old of the tribes have great influence over the minds of the younger. They are divided into factions, one faction

of the tribe being most ready at all times to complain of any shortcomings of another; hence, I take it, the absence of any of the higher crimes. They are not at all times strictly honest among themselves, but it is not often that theft is committed by them upon the whites. This, in a great measure, is the result of their not being able to trust each other. I may safely say, however, they are well disposed toward the whites, and if fairly dealt with I apprehend no trouble from them, even should tribes near them become hostile, for although wild and barbarous, they are shrewd enough to know that to become the enemy of the government would cost them, in all probability, their homes and remunerative fishing-grounds, which yield to them at any season of the year ample for their wants. Some few of them own two or three head of cattle, while a few of them have horses; but neither the one nor the other are of much service to them. No unfriendly feeling exists between these Indians and those of the neighboring tribes, beyond a certain degree of suspicion inherent in the Indian.

Whatever missionary labor may have been bestowed upon them has not met with much favor, and with the exception of those who have received the benefits of the school, they are ignorant and as uncivilized as ever.

I have made some little progress this year in inducing a few of them to fence and plant small patches, but the land is for the most part poor and sterile, and the results of their labor too slow in being realized. I have no doubt, however, that by furnishing a few seed (as I have this year done), and by other means of encouragement, some might be induced to try cultivation to a limited extent; but the demand for their fish, oil, and seal skins being immediate and sure, more so to-day than ever before, as canneries and fish-packing companies are starting up at no great distance, these Indians care for no part in anything that does not bring them in immediate returns.

The location of this reservation and its agency could not be better. Situated in latitude $48^{\circ} 21' 49''$, longitude west from Greenwich $124^{\circ} 37' 12''$, with a climate, although somewhat humid, nevertheless congenial; its streams abounding in fish, and with an inexhaustible wealth in the waters washing its shores, these Indians have, I am satisfied, as favorable a location as any tribe or tribes in the dominion. There has been no survey of the reservation, but its extent is said to be about 60 square miles.

The Quillehutes, who live off the limits of the reserve, are orderly, and are not only well disposed towards the whites, who are gradually settling up the land in their vicinity, but they are a benefit during the present early stage of civilization here, and I should suggest that they should be allowed to remain where they are. They, like the Makahs, are fishermen, and their present locality is remunerative to them, and in no way that I can see clashes with the interest of their white neighbors. I have had no complaint from that quarter against any of these Indians worthy of note. There are a class of men who will not tolerate an Indian simply because he is an Indian.

The health of the Indians of this agency during the past year has been good. Considerable sanitary improvements have been made since the advent of my predecessor, Capt. George D. Hill, late acting Indian agent, and I may add that in this matter, so essential with these people, no effort will be spared by me to further improve their condition.

The number of births and deaths during the past year I am unable to give. All I find recorded are as follows: Births, 8 males and 6 females; deaths, 6 males and 6 females. These numbers are, I am convinced, far below the facts.

The number of Indians of this agency, including the Quillehutes, is as follows: Males, 466; females, 556; total, 1,022. Of the above numbers, 309 are Quillehutes.

The annuity supplies issued to the Indians of this agency since my taking charge have been issued only when work adequate to the same has been performed (save in the case of the sick); the system, I find, works well, the Indians understand it, and they exhibit no discontent. This is an excellent method, in helping to make the Indian self-supporting, and in the economy of funds.

I have had erected a blacksmith's shop, the old shop being in a spare room in one of the employés' quarters, not at all adapted to the purpose, and a nuisance to the occupants. I have also done much in repairs to dwellings, fences, &c., and have now in course of erection two dwelling-houses for the employés, there not being sufficient accommodation heretofore.

The cattle, the property of the government, numbering 38 head, are for the most part small, but in good condition, the larger animals having been killed for consumption by the industrial school, until they are reduced mainly to two-year-olds, yearlings, and cows.

The returns from the agency farm this season will be moderate, rust having attacked the potato crop, and we are also experiencing some difficulty in securing the hay, through heavy rain-storms. We have still a quantity of hay uncured.

The industrial school at this agency, numbering at present 34 scholars, 15 males and 19 females, is situated at Ba-adah Point, at the head of Neah Bay, and distant about two miles from the Indian village; the school-house proper, however, a large, commodious building, is situated at the Indian village; it is the largest and most substantial

building in the agency, with walls of stone to the first floor, but, for some reason unknown to me, it has been allowed to go to decay, and is now so far out of repair that an outlay of probably \$500 would be required to make it inhabitable. It is here the industrial school should be. The entire school of 34 children are boarders, and are living in the same house with the agent and his family, who also has his office there. The school is progressing very favorably; the scholars take an interest in their studies; many of them are remarkably good readers, and their writing and dictation is very satisfactory. Several of them are being taught arithmetic, and a knowledge of geography, particularly of the Continent of America, forms part of their studies. They take great delight in singing, and are carefully instructed in the same. All instruction is in the English language, and they are also taught the various industries most essential to them in the years to come.

It is with these children that the future of these people hinge. These Indians are certainly a wild race, the older members, as I have said, having great influence over the minds of the younger, but there is a great difference in the disposition of mind between the old and the young adults, nevertheless. Some of the latter of both sexes have been scholars here, and although the older ones have shown great antagonism to the school from time to time, yet these young are the wise among them, and their knowledge, when attained, secures to them a standing with their elders they would not otherwise have, and must help, not a little, in keeping down any seditious notions the older ones might venture to indulge in. The parents have become reconciled to their children being taught; whereas, but a short time ago, they would beat their offspring for speaking in any but their own tongue, and it was difficult to induce the scholars to answer in English out of the school limits. A great change for the better is slowly but surely making itself felt among these people, and it is the instruction the young receive at the industrial school that is working this change.

A good staff of white employés at an agency also add, much toward the advancement of the Indian. Such are our present employés. All are well qualified to fill the positions for which they are engaged, and all bear excellent characters. In addition to their duties, they are more or less in intercourse with the tribes and can influence them for good; and I regret exceedingly that Circular No. 22, with its accompanying list, has so far reduced the salaries of the employés of this agency that it is the signal for the resignation of some of them, and I am convinced the salaries fixed will not secure to the government as efficient a staff of employés.

In submitting the above, I would respectfully state that the industrial school is the main feature; that to educate the children of these Indians is the best and surest way to civilization; and in order to do this, none other than a boarding-school (such as at present exists) will answer. The children must be kept entirely from the homes of their savage parents. There are no better children anywhere than those at present dwelling under the same roof with myself and family. They are intelligent, well behaved, and much attached to their teacher and the other employés whose duty it is to watch over and instruct them.

Very respectfully,

CHAS. WILLOUGHBY,

United States Indian Agent, Neah Bay Agency.

The COMMISSIONER OF INDIAN AFFAIRS.

OFFICE UNITED STATES INDIAN AGENT FOR THE
PUYALLUP, NISQUALLY, AND OTHER INDIAN TRIBES,
Olympia, Wash., August 20, 1878.

SIR: In accordance with the requirements of the Indian Bureau, I have the honor to submit the following as my third annual report, being for the year 1878, as the United States Indian agent for the 1,731 Indians belonging to this agency.

AS TO NUMBER OF INDIANS BELONGING TO AGENCY.

The Indians of this agency belong to five reservations and eight scattered bands not belonging to reservations. In obedience to your Circular No. 6, of January 23, 1878, as explained by your letter of March 14, 1878, I forwarded to you, under date of 7th of June last, a carefully ascertained census of the Indians belonging to said five reservations and to seven of said bands. The census of one of said eight bands, viz, the Louis River band, was not ascertained for reasons stated; nor have I yet been able to ascertain with the desired certainty the names of each head of family and numbers in all families, as this band is widely scattered upon the different forks and confluents of Louis River. But, as near as I can ascertain, this band numbers 104. This will make the whole number belonging to said eight bands 598. The whole number belonging to said five reservations is 1,133, bringing the whole number belonging to this agency up to 1,731.

CONDITION OF INDIANS.

By direction of your circular of instructions of July 10, 1877 (which is the same this year), my annual report for last year contained "such general information as in itself afforded to any one who inquired for the first time respecting my Indians a fair and truthful picture of their condition." That condition has been so little changed during the year that has passed that any person desirous of knowing the present condition of the Indians belonging to this agency is, for all practical purposes, referred to my annual report for 1877, which I think it unnecessary to repeat.

PEACEABLE DISPOSITION OF INDIANS TOWARD WHITES.

The Indians belonging to this agency are very peaceable and well disposed towards the whites. Notwithstanding some of them are badly treated at times by evil-disposed white men, they never undertake to redress such wrongs, but either tamely submit or complain to me. I invariably examine and redress their wrongs and see that justice is done them as far as possible.

INDIAN LABOR FOR WHITES.

Since the termination of annuities in this agency in 1875, the greater part of the Indians belonging to it depend almost wholly upon obtaining means for the purchase of their clothing, bedding, mechanical and farming implements, and most of their subsistence, by labor for the whites in slashing and clearing up land (at least two-thirds of the timber lands west of the Cascades that have been cleared have been cleared by Indian labor), harvesting, hop-picking, logging, working at saw-mills, gathering oysters, fish, &c. Very few of them depend wholly upon the product of their farms for procuring all the necessaries of life; but this few is gradually increasing on the Puyallup Reservation.

STATISTICS, PROGRESS, RETROGRESSION.

The statistics herewith inclosed are of the Puyallup Indians and reservation only, as I had no blank for the other four reservations. But the Puyallup statistics are the only ones worth forwarding, as they alone show encouraging progress and improvement over last year. The Nisqually and Shoalwater Bay Indians are just about where they were last year as to progress. There has been decided retrogression with Chehalis and Squaxin Indians.

HOW DESTRUCTIVE VICES MAY BE ARRESTED AND EXTINCTION STAYED.

The habits, barbaric ideas, and vices of the adult savage are to a great extent fixed and unchangeable, and, like the gnarls, crooks, and imperfections in a grown-up tree, cannot be much changed by culture. But as the fruitage of a grown-up tree may be greatly increased and improved by pruning, fertilizing, &c., so the adult savage may, by the all-transforming power of Christianity, be made a new creature by its benign influence, and be thereby purified and shielded from the deadly vices of the white man and the superstitions of his own race, his conscience awakened, and his perceptions opened to his responsibilities to God and his fellow-beings.

FRUITS OF CHRISTIANITY AMONG THE PUYALLUP INDIANS.

The salutary influence of Christianity and constant presence of efficient Christian teachers is signally illustrated at the Puyallup Reservation of this agency. At the beginning of 1876, the Rev. M. G. Mann came to the Puyallup Reservation as a missionary from the Presbyterian Board of Domestic Missions, and has been constantly there, either in that capacity or as teacher of the industrial boarding-school, up to the present time, and has preached to the Indians and had a Sunday school regularly every Sunday, visited their sick, and buried their dead with Christian funeral service. He has been efficiently assisted in his Christian labors among these Indians by Mr. John Fleet, a consistent Christian, who has been a government employé on that reservation and resided there with his estimable wife and family over ten years. The result of these labors has been the establishment of an Indian church of over one hundred and sixty consistent members, a full Sabbath-school, Christian marriage of nearly all adults, and the strict observance of the marital ties; discontinuance of gambling, drunkenness, buying and selling women for wives, incontinence, superstitious rites and incantations, called *temanimus*, over the sick; settlement of personal disputes and difficulties among themselves by arbitration or by the council, &c.; decrease of idleness, increase of industry; more at home, less gadding about, &c. Please see annual report of teacher, herewith inclosed.

NO CHRISTIAN TEACHERS INSURES INERTIA AND DECADENCE.

Children can only be improved in correct knowledge and habits by the constant presence, instructions, and example of good parents or teachers, and when deprived of such parents and teachers, progress in everything good ceases, and the good they

may have learned is soon forgotten and supplanted by evil. Uncivilized Indians are eminently children, and after civilization and Christianity have been made to take root among them, these highest virtues can only be kept alive and in vigorous growth by the constant presence and culture of active, zealous, Christian teachers. This truth is strikingly illustrated by the past and present status of the Indians of the different reservations belonging to this agency. As has been shown, upon the Puyallup Reservation, where the Indians have for years had the constant presence and active efforts of zealous, Christian teachers, civilization and Christianity have taken root and have vigorous life and growth.

Upon the Chehalis Reservation, in 1872, after I took charge of the superintendency of Indian affairs of this Territory, I had good boarding-school buildings constructed and a good school under efficient teachers started, which with other employés was kept in operation there till June, 1875, when for want of funds the school and all employés there were discontinued. During that time, civilization and Christianity commenced taking root among the Indians of that reservation. They commenced cultivating larger patches of ground and to discard their vices and heathenish rites. A Methodist church of over 40 Indian members was organized, and a Sunday-school, and for a time there was considerable manifestation of Christian life and zeal among them. But active decadence in civilization and Christianity commenced with the discontinuance of the school and employés. Agricultural products of the reservation rapidly diminished, gambling, superstitions, and other vices revived; the Christian seed sown proved to have fallen by the wayside and on stony ground, and all traces of the church organization soon disappeared, "and their last state is worse than the first."

As there never have been any employés on either the Nisqually, Squaxin, or Shoalwater Bay Reservations since I took charge, there has been no change among the Indians belonging to these reservations from their native barbarism, except that they all wear clothing like the whites; some of them cultivate patches of land and have a few cattle, and many indulge in the white man's vice of gambling, drinking, use of tobacco, and incontinence in other matters. Either inertia or decay in morals and numbers is with the Indians belonging to all of said four reservations; and such is the case with the Indians of every reservation on this coast where there are no missionaries or government employés. All experience demonstrates the fact that it is just as impossible for Indians to civilize themselves without teachers as it is for white children to culture themselves in Christianity and knowledge without parents or teachers.

EDUCATION—THE LACK, ETC.

The only Indian school within the limits of this agency is the industrial boarding-school at the Puyallup Reservation. By the direction of the department last year this school was limited to 25 boarding pupils. This was unfortunate, as 50 boarding pupils could be accommodated in the school buildings there. This last-mentioned number is only about half the Indian children of school age belonging to the Puyallup Reservation, all of whom ought to be passing through the civilizing mill, the industrial boarding-school. Within the limits of this agency there are fully 200 Indian children of school age, seven-eighths of whom are growing up in the ignorance and barbarism of their parents. Who is responsible for this? Surely not these children, or their poor, ignorant parents.

RECOMMENDATIONS.

1st. That ample provision be made for the compulsory education of all Indian children within the limits of this agency, at one or more industrial boarding-schools. This provision might be made at the Puyallup Reservation by additions to the boarding-school buildings there, so as to accommodate, say, 150 pupils; and by fitting up the boarding-school buildings at the Chehalis Reservation to accommodate 50 pupils. The buildings at the last-named reservation are sufficient in capacity to accommodate 50 pupils if properly fitted up.

2d. If no school is to be allowed at either the Chehalis, Nisqually, Squaxin, or Shoalwater Bay Reservation, I would recommend the discontinuance of said four reservations, after giving titles to all Indians on said reservations for the lands upon which they have made permanent homes and improvements and substantially complied with the homestead laws; and that the residue of the lands of said reservation remaining after the granting of said titles be appraised at their fair value and sold to the highest bidders, at not less than their appraised value, on ten years' credit, one-tenth payable in hand and the balance payable in nine annual payments, with interest at the rate of 8 per cent. on deferred payments. The money thus obtained to constitute a school fund for the support of the one or more industrial boarding-schools. All Indians not owning lands on or off the reservations to be moved to some reservation where their children could have the benefit of a school, and adult Indians the benefit of Christian instruction in morals and direction in their industries.

3d. That titles of such a character as may be thought best be speedily given to all Indians who have taken claims on reservations and made permanent homes and im-

provements thereon. This is a matter I have urged so often in annual and monthly reports, and in letters, and the department must be so well informed as to my views thereon as to render it superfluous to say more on this subject at present. (See Report Commissioner Indian Affairs for 1877, pp. 190, 191, and 193; for 1876, pp. 137, and 138, and for 1872, pp. 329 and 330.)

4th. That the criminal laws of this Territory be extended over all reservations and Indians the same as over the whites. Also the civil laws, except as to taxation.

5th. I again call attention to "the blunder in the Medicine Creek treaty" mentioned in my two last annual reports, and ask that in some way it be rectified. (See Report Commissioner Indian Affairs for 1877, p. 194, and for 1876, p. 138.)

I have the honor to be, very respectfully, your obedient servant,

R. H. MILROY,

United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

REPORT OF M. G. MANN, TEACHER ON PUYALLUP RESERVATION.

PUYALLUP INDIAN RESERVATION, WASH.,

August 10, 1878.

SIR: The industrial boarding-school has been maintained on this reservation since July 1, 1877, at which about 30 scholars were in attendance. It is but justice to them to say that they learn well, and that they have made commendable progress in writing, reading, and arithmetic, and they have demonstrated the fact that Indian children have capacities very little inferior to white children. The great drawback to their more rapid advancement, and, indeed, to that of the whole Indian race, is their addictiveness to use their native language. The teacher has lately made such rules and inaugurated such measures as will tend to entirely exclude their language in social intercourse. The school and the church have been the centers of civilization, progress, and light, radiating throughout, and extending to the most distant and darkest corners of the reservation.

The Indians have made an advance all along the line this year. They are materially more prosperous than they have ever been before in houses, cattle raised and bought, in lands cleared and cultivated, and their efforts during the past year give proof that they intend to derive their subsistence chiefly from the products of the soil.

Of their own accord they have done away with all manner of gambling, and they have condemned and abolished the practice of making *tamanamous* or incantations and other heathen rites heretofore used in cases of sickness. They now entirely depend upon the limited supply of medicines dispensed to them from the dispensary at the school.

At this time while the country is troubled and startled on account of the atrocities committed by hostile Indians east of the Cascade Range of mountains, our Indians are plying their peaceful vocations, or rather are making war on their forests, clearing their lands and cutting their hay.

The Payallup tribe is decidedly on the increase, due to immigrations from affiliated tribes and to the increased number of births in excess of deaths during the past year.

The Indians care very little now for their tribal relation, and are independent of each other, each family living by themselves upon their allotments of 40 acres, which they all cultivate to some extent.

A *bona-fide* title to their lands cultivated by them as their homesteads, and they themselves citizenized, would at once transform them from being aliens and from the danger of being enemies into sure friends of our government.

I have the honor to be, sir, respectfully, your obedient servant,

M. G. MANN,

Teacher.

General R. H. MILROY,

United States Indian Agent.

QUINAIELT INDIAN AGENCY,

Washington Territory, August 5, 1878.

SIR: In compliance with instructions, I very respectfully transmit the following report for the agency for the year ending June 30, 1878. Having taken charge of the agency on the 1st of April, I can only report from that date.

The agency is located at the mouth of the Quinaielt River, 30 miles north of Gray's Harbor, and is probably the most inaccessible and isolated agency under the govern-

ment. I presume the agency would have been located farther up the coast had not an impassable mountain prevented the locating party from going farther by land, and they were too timid to venture on the ocean.

There are about 12 acres of land partly cleared here, and on this are the agency and school building, boarding-house, and stables, and the larger part of the Indian homes. All of the land suitable for cultivation is used for gardens and raising vegetables; the balance is meadow and pasture. Two and a half miles up the river are a few acres partly cleared that are used for meadow and pasture. There is so much felled timber, stumps, and brush on this land that it is impossible to use it for other purposes, except two acres that we have managed to plow and plant vegetables. All of the hay is carried on poles to the river, loaded into a scow and boated to the agency. I have made no effort to raise any grain, nor do I think it can be raised in paying quantities so near the coast. The vegetables indicate a better growth than I anticipated. I estimate the harvest at 900 bushels, divided as follows: Raised by the government 250 bushels, raised by the Indians 400 bushels, raised by the school 250 bushels. The work done by the school is all under the supervision of the teacher, to whom the credit is given.

The Indians are not disposed to labor, not even for themselves, at any useful employment unless they are paid for it. To induce them to clear some land suitable for cultivation, I had to pay them \$20 per acre and give them the land to cultivate when cleared. I have by this arrangement got the timber cut on 12 acres, which will be cleared as soon as it dies enough to burn well.

I have visited the *Queets* Indians, located 20 miles north of the agency, and have induced them to clear 6 acres on the terms given the Indians here. The *Hohs* are still farther up the coast. I have not had time to visit them. They are raising some vegetables on Destruction Island. The *Quillehetes* insist on being returned to this agency. They are frequently here and cannot be made to understand why they were transferred to Neah Bay. There is tillable land enough along the rivers on this reservation to give a small farm to every male Indian belonging to this agency and if the *Hohs* and *Quillehutes* could be induced to come on to the reservation they could be well provided for.

But very little has been accomplished in educating and civilizing these Indians. They adhere to their superstitions and traditions with the greatest tenacity. The adults will not give them up, and the education of the children is the only way to eradicate the evil.

I have given the school some attention and have added 16 scholars that attend regularly, making a total of 30 now in the school. More could be added if they could be cared for, but with our present help no others need apply. The assistant teacher performs the duties of matron and cook and makes all the clothing for the girls and a part for the boys. The salary is \$200 per annum, nearly enough to pay her board. I have asked to have it increased to \$400, but as the reduction of salaries is now the order of the day there seems little prospect of a fair compensation being allowed the assistant teacher. If she should resign the school would close, as no other assistant could be induced to take the place at the present salary.

There is but a limited amount of supplies for the school now on hand. The order of June 14, directing me to purchase \$765.75 in supplies, reached me on the 3d of July. As the funds were only available for the fiscal year ending June 30, 1878, I could not make the purchases as directed, and I deposited the funds to the credit of the Treasurer of the United States in the First National Bank, Portland, Oreg. It is important that supplies be furnished as soon as possible, for when the winter storms commence on this coast there is great danger in shipping supplies across Gray's Harbor, and great difficulty in hauling from the harbor to the agency.

This agency is assigned to the care of the Methodist Church, and I had supposed the church would aid as far as possible in civilizing and educating the Indians, but I find that collecting assessments from the employés (who have been so fortunate as to get places here) to aid in sustaining a church at Montisano (70 miles from here) has been of greater interest to those in charge than the welfare of the Indians. This has been a reversal of the object intended by the government, and the Indians have aided the church instead of the church aiding the Indians.

None of the Indians here have any knowledge of mechanism, except in making bows and arrows, and digging out canoes. I have no permanent mechanic except the carpenter to instruct them, and he has very little to do in the shop or in building. His work is generally repairing houses and fences, and assisting in the farm work, and showing the Indians how to cultivate their lands. An apprentice would learn but little while working with him. If building material could be furnished to build houses for the Indians, then apprentices would have an opportunity to learn something, but as there is no lumber to be had except what is gathered on the beach, the chances for building are very limited.

There have not been any indications of trouble since Congress adjourned. The Indians are satisfied that no effort will be made at present to consolidate or transfer

them to the War Department, and there will be no trouble with them so long as the subject is not agitated in Congress, and all treaty obligations are observed by the government. They had sense enough to make a treaty, and they have sense enough to know when the treaty is violated. They have great love and veneration for their homes, and the graves of their kindred and friends; any attempt to move them forcibly would cause trouble. This reservation is worthless for white settlements, but a paradise for these Indians. Fish and game are abundant, and while they last the Indians will be happy and contented.

Very respectfully, yours,

OLIVER WOOD,
Special United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

S'KOKOMISH AGENCY,
Washington Territory, August 20, 1878.

SIR: I have the honor herewith to transmit my eighth annual report of the affairs under my charge belonging to this agency.

By the favor of the Allwise Ruler we have had a year of quiet and prosperity. The sanitary condition of the Indians has been reasonably good; the schools have been successful and encouraging, and although the financial distress which has swept over the country has affected them to some extent, yet they have not suffered for want of food or clothes in consequence. It may seem strange to speak of the Indians as at all affected by the financial condition of the country, but it is a fact that they are so far advanced in the arts of civilized life that they earn their living as whites do by their labor, and when that is scarce or wages are low, their condition is affected as really as any other class of people.

Their condition might have been less affected by the ebullitions of trade had they more land cleared so as to gain more of their living from their farms; but the want of individual titles and their liability to be moved from their present homes to some other reservation has had such a discouraging effect upon them that they could not be induced to clear any more land than white men would have done under the same circumstances, and so they have to depend as yet largely upon outside work for means to procure the necessities of civilized life.

Early last fall they had reason to believe that patents would soon be given them, and for a time were greatly elated, but soon after their hopes were again cast down by the news that a different policy had been recommended by the department. Some at that time abandoned their lands, the improvements upon which were worth hundreds of dollars, and went out on to the public domain and took up new lands away from their relatives and friends, and commenced anew to hew out homes for themselves which will not be subject to the changes incident to reservation life; but the greater part of them still hold on to their homes, hoping yet to be recognized and protected in the benefits and enjoyment of them.

Morally they are improving from year to year. There is less drinking and more industry. The stringency in the money market has cut off part of the supply of small change which the worst of them have, so that they have not had the means to gratify their appetites which they have sometimes had, and these circumstances, taken in connection with their growing appreciation of the evils of intemperance, have caused a considerable advance to be made by them in this respect during the past year.

In the matter of schools, there has been evident progress during the year. The one at the agency has been quite interesting. The teacher reports an attendance of 40 different scholars, with an average of 26 for the year. During the winter months these scholars are in school six hours a day, but during the spring and summer months they work one half of the day and study the other half. The past spring and summer they have, under the direction of the teacher, done the greater part of the farm-work at the agency, which has been raising about 6 acres of potatoes, turnips, and other garden vegetables, 3 acres of oats, and the cutting and housing of 60 tons of hay. By this arrangement the farmer has been released so as to devote much of his time to instructing the Indians in farm-work on their places.

Besides this one, in April last there was established a day-school at an Indian village 100 miles distant, which has surpassed my most sanguine expectations. At that place the Indians have secured by purchase a tract of 200 acres of land, divided it up and allotted it to the individuals who furnished the purchase money, have built comfortable lumber houses thereon, and live there, to the number of about 100. Of their own motion they have put up a small building, 16 by 26 feet, for a church and school-house; and a teacher having been furnished them, they have sent 31 scholars regularly to school, and the advancement made by their children in the acquirement of the rudiments of an education has been surprising. No community of white people could have

been more earnest and zealous in requiring the regular attendance of their children, neatly clad, and inciting them to study earnestly in order to get an education.

While, in some parts of this Territory, and more in the adjoining State of Oregon, many Indians have been engaged in hostilities, those belonging to this treaty have been ever and steadfastly peaceable and friendly in all their intercourse with their white neighbors, among whom they live upon the best of terms.

A building 24 by 50 feet has been put up at the agency, to be used for hospital purposes.

About 30 Indians have put into their houses this year planed floors and planed ceiling, and some half a dozen or more have papered their houses. These Indians now are a quiet, inoffensive, industrious, and, to a great extent, sober people. Their children, many of them, have the rudiments of an education, and, when grown up, would be as capable and deserving of the rights and privileges of citizenship as one-half that now enjoy the exercise of those franchises.

Among the freaks which some of them have taken the past year, has been their effort to become citizens under the naturalization laws, quite a number having taken out their first papers, under the impression that by so doing they would be secured against removal to some other reservation. However, the idea of becoming citizens is a subject in which they are becoming more and more interested; and the fact is that those who can read and write, who own land and other property, pay taxes, and live in comfortable homes as whites do, can have no good reason urged against their being so recognized.

Very respectfully submitted.

EDWIN EELLS,
United States Indian Agent

The COMMISSIONER OF INDIAN AFFAIRS.

TULALIP SPECIAL AGENCY,
Tulalip, Wash., August 23, 1878.

SIR: I have the honor to submit my first annual report of the condition of this agency. Upon my arrival here on the 6th of December, 1877, I relieved my predecessor, Mr. Edmond Mallet, and since have devoted my whole time to the affairs of the agency. The fact that I have been so short a time in charge must be my excuse for not presenting as full a report as might be desired.

I found the agent's house, as well as the houses of the Indians, in a dilapidated condition, and in fact wholly unfit for the purposes for which they are designed; repaired as they are now and inclosed by substantial picket fences, they present a neat and attractive appearance. The actual aspect of the agency, in approaching it from the bay, presents a scene of neatness and thrift which receives the commendations of the traveling public. The influence of these improvements upon the Indians themselves is very noticeable, and many of them have made considerable additions to their houses, and keep them in a neat condition.

Last year but little of any farming was done; this year we cultivated all that could possibly be plowed, and though considering the extreme dryness of the weather, we anticipate a satisfactory result.

The carpenter and blacksmith shops have been kept in operation, and have been of great service to the agency. From the want of an appropriation for the board and wages of Indian apprentices, none have been taught, but since the 1st of July of this year funds have been provided, and I shall now be successful in inducing the young men to learn those trades.

The saw-mill has been repaired and put in good running order; an addition has been completed for a planing-machine, which is now successfully used, and proves to be one of the greatest acquisitions to this agency, as it enables us to manufacture all the lumber needed.

A new wharf has been erected, but not completed as it should be, for want of lumber. It will be planked when there will be sufficient water to run the saw-mill.

The boarding-schools pertaining to this agency have been remarkably successful during the past year, and the daily average attendance has been 56. The influence exerted on the Indian people by the schools is marked and incalculably great. After the church the school is the great civilizing element here. Those who have been brought up in the school now form a considerable element of the population, and as they have abandoned all the Indian habits and customs, in a greater or lesser degree, they form a separate class from the old Indians. Their houses are neater, their partners and children better dressed, their gardens better cultivated, they work more steadily; in short, they are a better class of the Indian community, nor are their examples entirely lost on the old Indians.

The schools are now under the supervision of the Sisters of Providence, and too much

praise cannot be given for the manner in which they have managed them; the success they have obtained speaks enough in their favor. It is to be regretted that the appropriation should be so inadequate to the wants of these schools.

The sanitary condition of the Indians has improved during the past year; there is greater attention paid to cleanliness in their persons and appearance in dress. There has been but little sickness aside from constitutional diseases, such as scrofula, which seems quite prevalent. The extreme difficulty of a single physician visiting the several reservations so widely separated, and the infrequency of the trips made by the steamers, render it impossible that proper attention be paid to these sufferers. If there was a steam-launch placed at the disposal of the agency, it could be utilized for all purposes connected with the management of the several reservations, and would be a great saving of expense in transportation to the government.

There have been several changes in the employés since the department has reduced the salaries. I find considerable difficulty in procuring suitable men at the salaries allowed at present.

In distributing annuity goods I have strictly adhered to the letter of the law; no goods have been issued without obtaining labor for their value, except from old and infirm persons. The fact of requiring labor from the Indians in payment of their annuities has caused, for the time being, a great deal of hard feeling against the agent, because they have never been required heretofore to perform any labor in compensation for the goods received. Notwithstanding all their complaints in the matter, I have adhered to the instructions of the department, and now I have the satisfaction to see that the industrious Indians appreciate my efforts in enforcing these regulations.

I have the honor to be your obedient servant,

ALFRED N. MARION,
Special Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

WASHINGTON, D. C., September 9, 1878.

SIR: I have the honor to submit my thirteenth annual report of the *Yakama* Indian Agency, Washington Territory.

I was appointed to said agency as superintendent of teaching September 1, 1860, and in June, 1864, agent. Immediately on going to the agency, in the fall of 1860, I began to prepare places for opening a boarding-school for the children of the agency. There was no provision for the subsistence of the children. I pledged the department, if they would feed the children for a time, until the wild steers could be made oxen and the Indian children could be tamed to drive them, and seed planted and sowed, and time given for it to come to maturity, the school would raise enough for its own subsistence.

Provision was made to subsist the children of the school for eight months. I immediately gathered in the larger boys for school, and commenced my instruction in yoking the cattle, hitching them to the plow, and with my wild team and wild boys began making crooked furrows on the land chosen for a school farm. In starting out with unbroken team and uneducated drivers, I needed and had a boy or two for every ox in the team, and then it was difficult to keep them on an area of 80 acres. Patience and perseverance in the work soon tamed the cattle and instructed the boys in driving. So good work was done in opening a school-farm. We plowed in the fall about 20 acres, and sowed wheat; and in the spring plowed 10 acres more; that was planted in corn, potatoes, and garden vegetables. We fenced 80 acres. When the crops were matured, we had 300 bushels of wheat, 500 bushels of potatoes, 40 bushels of corn, with pease, turnips, and garden vegetables sufficient for the subsistence of the school, and seed in the spring to assist the parents of the children in beginning the work of farming. This work was done wholly by the boys of the school and the superintendent of teaching.

The instruction in the school-house began in November with 25 children. The children were taken from the camps of their parents in great destitution, not having clothes enough to cover their nakedness. Mrs. Wilbur instructed the girls to sew, spin, knit, to cut and make dresses, and clothing for the boys. This work in part was done in a room adjoining the school-room. Mrs. Wright, matron, instructed the girls in cooking, washing dishes, washing their clothes, and keeping their beds and rooms in order. From the oldest to the youngest of the boys and girls, all were required, out of and in school, to do what they could to help and keep up their department. Mr. Wright was the teacher for the school-room. He was the right man in the right place; a Christian man, with great practical ability.

The school-farm thus opened, and the children thus cared for at the boarding-house

and school, operated like a mainspring to a watch to kindle a desire in the parents to have land and cultivate the soil. They asked for and received help in breaking new land, putting in seed, and instruction and assistance in fencing. The work thus begun in weakness has grown from year to year, until the Indians of the agency are well nigh self-supporting.

The boys of the school after being in school for a year or two were put into the different shops at the agency, where they were instructed in useful trades—blacksmithing, carpenter work, plow and wagon work, harness-making, saddle work, boot and shoe making, and painting; indeed, all the work in the shops, on the farms and mills, that is necessary in carrying on the work of the agency independent of white instructors. I am happy to say, with the instruction thus given, and the improvement made, we now have mechanics in every department of business that have developed to be full-grown men in business capacity. Whereas once all the teaming was done by white men, now it is done by the Indians of the agency. My head blacksmith is a native, good workman; has had charge of the shop more than four years. The Dan. Boone of the agency is a practical harness-maker. Smith, the saddler, has the reputation of being the best saddle-maker in the country. Charley Olney is a practical carpenter; Tecumseh has been educated in the plow and wagon shop, and George Waters is our painter.

Our farming and stock-growing has taken the lead in business enterprise. We have now under good fence at least 15,000 acres of land, and 5,000 in cultivation. This fencing has been done by the Indians; in some instances a white man has been delegated to superintend. Within four years we have made, with Indian labor, 30 miles of post-and-board fence, as good as any farmer in all the country has about his farm.

The Indians have at least 3,500 head of cattle of their own, and about 16,000 head of horses. Very many of them are living in good houses, painted outside and in, with furniture, chairs, tables, bedsteads, cook-stoves, mirrors, clocks, watches, crockery, the newspaper, and the Bible. They have barns, wagons, harness, plows, and the improved machinery for farming. The women have sewing-machines. For several years past we have not been issuing rations to any of the Indians except to the sick. To them we do not give more than 2,000 pounds of beef and the same number of pounds of flour in a year. When the able-bodied Indians want food, if they work they are fed; if they won't work, they go hungry. If they want clothing they are required to work. If in chopping, sawing, hoeing, plowing, mowing, or whatever work they may be put to do, there is not immediate profit to the department, there is profit to the Indian, in contracting the habit of work, the manner of doing it, and the pay he receives for it.

I have no affinity for the custom and practice now pursued in many of the agencies of this nation—feeding the Indians in idleness, and preparing them, when their treaties run out, to fight the whites, and get a new treaty, and thus from year to year and generation to generation be a tax upon the industry of the whites. What we want in the Indian service is not more money, but a consolidation of the agencies on good reservations, where the land if properly cultivated will be remunerative; where white men could live and prosper; where the Indians are remote from the pestiferous influence of degraded whites; remote from towns, cities, and the great thoroughfares of the country. They want and must have men of God, full of business enterprise, capable of managing their own business and making it thrifty; men who are awake to the interests of this and the world to come; instructors, to educate them by precept and example. Give the Indian agencies through the nation such men as agents, and the muscle and heart of the Indian would be educated, not for the use of the bow and arrow, not for the war-dance and scalping-knife, but for the plow, for the habits and practices of civilized life, for mental, moral, and physical culture, for the knowledge of the Bible, of God, and heaven. With such men upon the reservations, instructing and governing them, there *can be no failure*. They would soon have farms, houses, and all the comforts of civilization, and even many of the luxuries of life. Their home fixtures and comforts would put an end to their wanderings and wars, and would give greater security for future and continued peace with the whites, than regiments of soldiers stationed around them. They must have *practical business men*, who can instruct them how to live by the cultivation of the soil, and the teachings of God's Word; any and everything else connected with the service is a failure. I repeat, the great want of the Indian service to-day is practical Christian men that stoop down to help the fallen, and are ready to make sacrifices for the good of humanity; men that will go to their lonely camps and tell them of a better way of living and a better country on the other side of the river of death, and by this kind and wholesome instruction lead them out of the darkness of sin, from the bondage of Satan's power, to light and life, such as the Gospel of our Lord and Saviour Jesus Christ can give. These are the men the Indian service demands, and which instrumentality will give the Indian a good moral character and physical culture. Then, the Indian has no need of the gifts of the government. He then, like all other good men, is prepared to take care of himself.

It may be said the Indians of the Yakama Agency have a better reservation than

others. This is doubtless true; the reservation is well located for the peace, purity and general prosperity of the Indians. It is a healthy climate, fine grazing, a good outlet to the mountains for hunting purposes, remote from town and whisky influences, containing a sufficiency of good land for farming purposes, fine streams of water, abounding with the best salmon in the world, and excellent timber; but what avails all these good things if men, white or red, do not work? Eden itself would be a blight to its inmates without industry and correct action. So of any reservation. The Indians of the Yakama Agency were as low at our beginning with them as humanity gets without getting into the pit that is bottomless. They were taken from the war-path, gathered upon the reserve, and fed at great expense by the government, clothed with annuity blankets and goods, living in idleness, using the goods furnished as a gambling-fund, drinking whisky, running horses on the Sabbath, stealing each other's wives, and carrying out the practices of the low, degraded white men to great perfection. The Bible and the plow (which must never be divorced) have brought them up from the horrible pit, and put a new song into their mouths, and new hopes into their hearts. They are washed and clothed and in their right minds. Between five and six hundred are accepted members of the Methodist Episcopal Church.

There can be no lasting good accomplished with the children in school, without taking them to a boarding-school, where they are taught to talk, read, and write the English language. We have in the school, shops, mills, at the farms and station the past year more than 100 receiving instruction.

The sanitary condition of the Indians as a whole, is improving from year to year. The Indians are said to be fast running out, and will soon pass away; the Indians of this agency are increasing from year to year. Dr. KeyKendall, our agency physician, is very attentive to his profession and practice, and gives general satisfaction to the Indians of the agency. Depending as we did upon the department at Washington to supply the agency with medicines, and being destitute of them for more than one year after they were promised and expected, subjected us to great inconvenience, and caused us to send a man, at different times, sixty-five miles to obtain what was needed for a particular case. This occasioned restlessness with some of the employés, and dissatisfaction and complaint among the Indians.

Our mills are in good running order except the water saw-mill, which needs repairs. The grist-mill, under the wise and prudent management of G. C. Roe, does all the work of the agency, in the best possible manner. The steam saw-mill and fixtures, planes, shingle-machine, and turning lathe give employment to a large number of Indian men when the mill is running. The mill cuts in twelve hours from 10,000 to 12,000 feet of lumber; the planer will dress from 8,000 to 10,000; the shingle-machine will make 15,000 shingles in twelve hours. The cutting and hauling the logs to the mill, tending the screws, bearing off the lumber, sticking it up, attending the planer and shingle-machine, cutting up the slabs and attending the engine is all done with Indians, except two white men to take the oversight; one stands at the lever to direct how the lumber is to be sawed, and to keep the saws in order, and the other to take a wider range in the business—seeing that the lumber is properly sorted and stuck up, looking after the running of the shingle-machine and planer, taking in his oversight as wide a range as the men and teams are working. The mill and the machinery attached, with men and teams to stock and run it, at a cost of \$50 a day, will make and dress lumber and manufacture shingles that are worth at least \$200.

The department did not appropriate one dollar for the purchase of the machinery, and building the mill; the mill and fixtures are worth \$15,000. The agent grazed cattle on the agency for stock-growers around the agency, and obtained money to purchase the machinery, and the Indian men with their teams, under the supervision of the agent, transported the engine and machinery to the place of its erection. The agent went into the timber with the Indians and camped, working with them six weeks in the erection of the mill, and adjusting the machinery.

My settled plan and practice has been, is, and should be while I continue in charge of the agency, to have no employé but those who are strictly and constantly moral and well qualified to fill the place, and do the work for which they were employed.

The bell at the station rings at five o'clock in the morning, breakfast at half-past six. The bell for work rings at seven, when all employés are expected and required to be at their post of duty. The superintendent of teaching takes the boys to the garden (if in the warm season) to work, and if in the winter, to sawing and splitting wood about the station. The teacher, Mrs. Headley, has at the same time the girls doing up the work of the dining room and kitchen, and those not needed in that department are put to mending and making their dresses and the clothing for the boys of the school. At half-past eight o'clock the bell rings, the children put up their tools and work, wash and get ready for school, so as to be in their seats at the ringing of the bell at nine. The sessions are from nine to twelve, and from one to four. The children have lunch immediately after the school is dismissed at twelve and dinner when the bell rings at six to stop work in the evening. The superintendent of teaching gathers the boys at the school-room at seven in the evening and spends one hour

with their singing, reading and praying with them, and at eight they all go to bed, the superintendent seeing that every boy is in his place, and the teacher, Mrs. Headley, taking the same course with the girls.

My residence upon the Pacific coast for more than thirty-one years, during all the wars between the whites and Indians, and my living among them for eighteen years and having charge of them as agent fourteen years, and learning their language, customs and superstitions, I hold I know more what the Indians are, and what the Indians need, and how the Indians must be managed to have peace on our borders and prosperity in the Indian service, than those who have gained all their knowledge of Indians in reading the reports in the newspapers and from irresponsible men who claim and say "the Indian has no rights that the white man is bound to respect."

In conclusion, I repeat, give the Indian good land, practical business and Christian men for their agents, and moral men, without an exception, for employes who will educate them to work; then let the government appropriate money to help them to seed, tools, and teams until they can be educated to cultivate the soil, and the expense of taking care of the Indians in five years will diminish half, the Indian will be elevated, and wars with the whites will cease to the end of time.

I am, sir, your obedient servant,

JAMES H. WILBUR,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

GREEN BAY AGENCY,
Keshena, Wis., August 20, 1878.

SIR: In keeping with the requirements of circular of July 1, herewith please find my fourth annual report of affairs of this agency:

With much pleasure and pride I was enabled last year to speak of a marked increase in the spirit of thrift as shown in efforts put forth by the

ONEIDAS

in enlarged farms and more careful attention to their crops than in previous years. This year the increase is still more noticeable, and their improvement in this respect is worthy of much commendation and great cause of rejoicing among the friends of the Indians; and while they keenly feel the injustice done them by the inaction of the government in not providing for the allotments of their lands, and granting them citizenship which they have often and loudly called for, they have industriously sown their seed, and are now reaping a bountiful harvest as a result of their labor. The statistics of their crops will show at least a third more than was gathered last year, and nearly double of any harvest they have made in the history of the nation since they came to Wisconsin.

While they profess to much interest in

Education,

the great mass of them are indifferent to this important matter. The school-rolls show but a fair average attendance, and the most trivial excuse is given for days and weeks of absence by the scholar. I am proposing some radical changes for this tribe in their schools, which, if sustained by the Indian Bureau, must be productive of much good, and without question of much benefit to the rising generation.

I regret that I am unable to speak encouragingly of a decrease in

Crime and drunkenness.

The withdrawing by government of the reward formerly offered for evidence convicting a person selling liquor to Indians, and the seeming apathy of the commissioner before whom these cases are tried, and the nominal fine and imprisonment in case of conviction, emboldens the vender to carry on his traffic with a high hand, and only occasionally can evidence be procured to warrant arrest. Much

Religious

interest has been awakened in the Methodist Mission, many additions to the church made, and two or three have been licensed to preach the Gospel by the conference having the church in charge.

The Episcopal church, much the larger of the two missions, is well sustained, and their Sunday congregations would do credit to many of our city gatherings, both in numbers and devotion.

What can be said of the little handful of

STOCKBRIDGES,

the honor and glory of whom, as Indians, has long since departed? Only 122 souls all told, each speaking English, as capable as any village of so many citizens to care for

themselves, masters of all the white man's vices, ready for any acts of meanness, knowing that they are Indians, and therefore cannot be punished. There are a few old steady and reliable men left, but their counsel and advice is ignored by the younger men of the tribe, who hold the offices and control the affairs according to their own liking. They have but six months

Schooling

in the year, and although the teacher is efficient, but little interest is taken by the parents in education, and not one-half of the children of school-going age are enrolled as scholars.

Internal quarrels, as of old, the presence of the old citizen party upon the reserve, the determination of two or three to cut and apply to their own use the little pine remaining, secretly, if not openly, sustained in this stealing by outsiders, who take the lion's share in the division, all lead one to exclaim, How long must these people remain as Indians, a disgrace to themselves, the State, and the nation? A vote taken in this tribe by Indians, who are of Stockbridge or Munsee descent, would show an almost unanimous choice for citizenship; perhaps five or six old men would rather die as they have lived, Indians.

The

MENOMONEES

have made a worthy record the past year, clearing up over 200 acres of new land, which is under cultivation this season. It has been the aim of your agent, in connection with the expressed wishes of the honorable Commissioner of Indian Affairs, that the Indian should be made to work for what he receives, thus making him self-supporting. With this end in view a distribution of \$1,000 worth of seeds among the tribe last spring was made only to those who would clear an acre or more of land. All but a very few went heartily into the field and cleared their acre, and very much interest was manifested in the work. The statistics of crops, which have been carefully estimated, show a handsome increase over former years. This tribe have taken an inspiration for more and better work upon their farms, which will, if persisted in, place them by the side of many tribes whose claim to civilization is far greater. The

Educational

interests of this nation, so well under way last year in the boarding and manual-labor schools, have somewhat been retarded. Only a day school has been in operation since the closing of the boarding-school in early spring, although the tribe cheerfully voted \$6,000 of their funds for the building of a suitable house in a more desirable location. The school, when in operation, is in such close quarters (and very near the store, warehouse, and barn) that we are unable to accommodate all who would be glad to come, and those availing themselves of the privilege are greatly disturbed by the surroundings, telling seriously to the great disadvantage of the teachers.

Having cut no pine, as in former years, for either market or agency use, with not average crops last year, a great reduction in the value of skins, with no work at the mill, and a very poor year for lumbermen in this vicinity, with whom many Indians find employment, much less work has been done and compensation received than in former years. Cases of

Drunkenness.

have been very very few, and not a case of crime of any magnitude among the tribe has come to my notice.

Only one case of trespass in cutting of

Indian pine.

upon this reservation am I aware of. Three cases of trespass upon the Stockbridge Reserve have been brought to trial with a conviction in each case, the court awarding full value for the timber removed, \$3.50 to \$5.50 per thousand feet.

Cases in suit for sales by the Oneida Indians, carried over from term to term, have been still further put over until October. Oneidas selling timber from their reservation will soon be a matter of the past; for they have cut and sold about all timber of any kind which had a value.

The visit of Inspector Kemble to this agency last October was one of pleasure to the Indians, as a direct representative from the Great Father at Washington is appreciated. His words of counsel and advice they enjoyed; and his assurance to the Oneidas that he would urge the allotment of their lands upon the higher authorities gave them much cheer, for it is what they so loudly call for, and great was their disappointment to know that Congress had adjourned without a bill for their relief. So with the Menomonees, who are disposed to sell a part of their reservation, and who for years have been trying to get a bill providing for the sale of their land. Notwithstanding the neglect these Indians get from the government, and the fact that overtures are made them from the hostile tribes of the West for a resort to arms, they remain truly

loyal, and patiently wait, praying the time may soon come when their request will be heard and acted upon; and there is much cause for gratitude, that under the peace policy of the government, a steady increase toward civilization is to be seen in their farms, houses, and habits.

With the exception of the scarlet fever in a mild form with the Menomonees and Stockbridges the

Sanitary.

condition of the tribes has been excellent.

Aside from any personal interests in the opinion of your agent, as well as all persons who have the interest of the Indians at heart, it would be a cruel blow to the cause of humanity to transfer the care of these oppressed and hated people to the power whose mission is to destroy.

With statistics of each tribe, and the annual report of blacksmith, miller, and physician inclosed,

I remain, very respectfully,

JOS. C. BRIDGMAN,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

UNITED STATES INDIAN SERVICE,
LA POINTE AGENCY, WISCONSIN,
Bayfield, Wis., September 1, 1878.

SIR: It is certainly very gratifying to me to be able to report that my Indians have steadily advanced in civilization; that they show an increased desire to inhabit houses, to dress in civilized costumes, to have and care for cattle, hogs, and poultry.

Experience being my teacher, I am glad to report the following as one of quite a number of instances that has come within my own knowledge. Last fall, in obedience to the request of twelve of my Indians, I estimated for twelve cows and calves, but received only eight. In consequence of this failure four of my people were disappointed after having harvested, at their own expense, a sufficient amount of food to care for the cattle during the winter (by no means an easy undertaking for an Indian). The disappointed ones, however, took the ill luck philosophically and made the best of the disappointment. They earnestly besought me to try again and if possible get the cows and calves; I did try, and secured each of the four a good cow and calf, for which they each worked upon their own 80 acres in clearing, &c., under the direction of the government farmer, thirty-eight days, and received each a cow and calf and drove them to their houses. A few weeks after a report came to me that Henry Buffalo was sadly neglecting his cow and calf; that he had secured each to a stake driven in the ground for the purpose and had taken his family on a visit to an adjoining settlement a few miles away, leaving the cow and calf without food to eat or water to drink for days at a time. This to me seemed terrible treatment, and I set myself about an investigation, and found that upon the occasion above referred to, the Indians in the vicinity had all gone to attend church service some miles distance. They having word of the coming of a favorite priest, friends had advised the stake arrangement, the fence not being considered strong, and made preparations for Henry in order to induce him to go. He started, but looking back took pity upon the dumb brute and returned, and remained at home all day feeding and watering his cow and calf, and using an evergreen brush to keep the flies off. The report was founded upon the fact that his house was locked up. Such care and sympathy are worthy of reward, when we realize that for years the Indian has been permitted to live with no thought for the morrow, with no idea of husbandry, with no proprietary responsibility or individual care.

The other day an Indian applied to me for lumber and nails to finish his barn, that he might have a floor to thrash his grain upon. The lumber and nails were furnished him, and on inquiry I learned that he had stripped a sufficient number of cedar-trees of bark to cover his barn, and not having horses or cattle, had transported it in a small boat upon the lake to the nearest point toward his house, and then packed it upon his back one and a half miles. Do you say such zealous and fatiguing labor does not deserve its reward? But I cannot rehearse the hundreds of such cases that have come within my own knowledge.

The headquarters of the La Pointe Agency is located at Bayfield, Wis., where the agent, bookkeeper, storekeeper, and interpreter reside, and the agency includes seven reservations, which will follow in regular order, as the Indians are known by the name of the reserve, commencing with

RED CLIFF.

These bands are two in number, and have a reservation of four sections just three miles north of Bayfield, on the shore of Lake Superior. They number 760 souls, and, in

consequence of small territory, are compelled to find houses in many cases off the reservation, living, as many do, upon the islands and villages adjoining. They live upon the result of their own labor. They are generally quiet and well-disposed people. All of them live in houses and wear the costume of civilized society. Many of them have professed the Roman Catholic faith, and attend regularly upon worship, walking or riding in their own boats from three to six miles to church. The four sections have been allotted by the agent to the claimants in 80-acre tracts some two years since, and considerable improvements have been made by individuals upon the land so allotted; in some cases houses and barns have been built and clearing in the heavy timber of as much as six acres to an 80. This has been done under the direction of the government farmer.

The individuals have been paid by government aid, in the way of supplies, for a great portion of this work in the following manner: When the goods and supplies have been purchased and sent to the agent the due proportion for each reservation is assigned to its proper place, with the direction that the supplies be issued to the individuals for some kind of labor. The chiefs and individuals of this reservation aid and assist the agent and employés in the proper distribution, joining cheerfully in the plan proposed by the agent, as follows: Suppose we have for this reservation one thousand dollars' worth of pork, flour, tea, tobacco, soap, &c., the farmer informs the Indians that each person having an 80 (there are 32 families upon this reserve who have 80s) may put in fifteen days' labor under his direction, for which he receives fifteen dollars' worth of supplies at actual cost. The Indian feels that he gets the result of each day's work thus performed. This stimulates to exertion, to more zealous and effective labor in the right direction. The character of the work of course is left to the discretion of the farmer; but we generally require clearing, fencing, house or barn building.

The Indians have broken 25 acres; have fenced 50 acres; have raised 30 bushels wheat, 100 bushels corn, 300 bushels oats, 2,400 bushels potatoes, 10 bushels turnips, 7 bushels onions, 12 bushels beans, and 1,000 pumpkins, and cut about 40 tons of hay. They have cut for the government 275 cords of wood, and will send to the State fair this year the first samples of their produce, having provided a very nice box containing corn, oats, wheat, beets, beans, pease, tobacco, &c.

The President has by executive order withdrawn from the market 18 additional sections for the use and benefit of these Indians. These 18 sections lie just north of the 4 sections, not more than a section deep, and running around about 18 miles on the shore of the lake. We have asked, and now have a bill before Congress, which we hope and pray may become a law, providing that individual Indians, who are entitled to 80 acres under the treaty of 1854, may have the privilege of selecting and have patented to them land within the boundary of these 18 sections. We find many very desirable locations along the streams, and in the little bays, and there are not a few Indians who would like to settle upon this shore that cannot be provided for within the 4 sections.

The thirty-two 80s comprising the 4 sections have been taken, and recommendations have been made by this office some two years since asking that patents be issued to the claimants; but the department seems slow to give us relief, and not a little discouragement among the Indians has resulted from this lack of sympathy and prompt action.

We have upon this reservation a saw-mill, blacksmith and cooper shop, farm and blacksmith's dwellings, and a very fine

School-house,

the latter valued at about \$5,000, in which we have kept school about ten months, having in attendance 30 regular scholars, 55 irregular scholars, out of a population of 58 children of school-going age, 209 Indians who can read, 61 of whom can read English; 12 have learned to read during the year. We have had 36 births and 25 deaths. The Indians are prosperous and happy, rapidly becoming a self-supporting people.

BAD RIVER,

located just east of Ashland and fronting upon Shagawamik Bay, and running round the lake to the mouth of Montreal River. It contains 124,333 acres covered with heavy timber, for agricultural purposes said to be the finest soil in North Wisconsin. Along the valleys of the Bad, White, and Ka-ka-gan Rivers we find a heavy, black, alluvial soil, rich in manure and the alkaline deposits of the mountain districts which these rivers drain, the uplands being mostly clay. We have belonging to this reserve 714 Indians. Many of the males are found at Ashland, and other white settlements, employed in the mills, sash and door factories, cooper, blacksmith, and carpenter shops, or earning their daily bread at other kinds of educated labor. They will leave their wives and daughters and small children at home on the reservation putting in crops, hoeing potatoes, curing wild rice, and otherwise preparing for the cold winter, while the men and large boys will earn from \$1.25 to \$2.50 per day in the towns and small villages, and send their families pork, flour, &c., upon which to live during their absence.

The result of this labor is thus recorded from an accurate estimate: 600 bushels corn, 550 bushels oats, 5,000 bushels potatoes, 1,000 bushels turnips, 30 bushels onions, 100 bushels beans, 200 bushels pease, 30 tons pumpkins, 160 tons of hay, 65 gallons of maple syrup, and 6 tons maple sugar; 5 tons of wild rice have been harvested; 200 bushels of cranberries have been gathered; 1,500 pairs of moccasins have been made; and 5,000 bushels of other vegetables have been raised. The value of other products raised is \$2,500. The Indians have made 1,200 pounds of butter, this being the first year that we have any statistics upon this subject, having only commenced the issuing of cows last year.

We have allotted (as in the case of Red Cliff) lands in 80-acre tracts to 204 families or individuals upon this reservation; these tracts are being improved by the individuals owning them, by building houses, barns, and fences. They are clearing a portion each year, and our policy is to seed down each year that portion planted the year before, and clear other lands for planting. We do hope that it may not be long till patents are issued, for Indians cannot bear suspense; long waiting is not conducive to good government or active enterprise among Indians.

We are again trying local government through the medium of Indians on police force, which was inaugurated by the present agent at Grand Portage, in 1874 (see annual report for that year), and which proved of so much benefit at that time; and although some opposition is felt, yet I think the Indians as a general thing look kindly upon our efforts to give them local self-government.

LAC COURT OREILLE.

This reservation is located in the northwest corner of Chippewa County, near the intersection of Ashland and Burnett Counties. It was selected undoubtedly for the timber, although some very fine farming land has been found. The Indians made the choice of this region of country on account of the very fine groves of sugar-maple and the large number of inland lakes, but the white man who defines the boundaries took occasion to so run the lines that the most of the maple groves and many of the lakes are left out, and the Indians have a reservation running from southwest to northeast about 30 miles, and from northwest to southeast but about 3 or 4 miles. This is much to be regretted, but it is passed, it cannot now be changed, so the Indians must make the best of it. The lands are, however, quite fair for agricultural purposes, and good crops can be raised when properly tended.

Upon this reservation we have made 160 allotments of 80 acres to individuals, and many good farms have been opened without very much encouragement from the department, as the Indians long for their patents, as in the case of Red Cliff and Bad River. In passing up the Lac Court Oreille River I found 5 new log houses, with (in one case) about 10 acres cleared and all planted. There are perhaps 20 or 25 other houses that have been built by Indians without any individual aid from government. They have improved the roads across the reservation.

They have some stock, but are sadly in need of more. They have but recently petitioned the department to permit a company to build a flooding dam across the Chippewa River, which has been refused as contrary to the policy of the department to allow white men other than Indian traders upon Indian reservations. This seems harsh treatment, especially as the department cannot aid these Indians for want of sufficient appropriations, and by building a dam a considerable revenue would be flowing into this isolated settlement. This office would earnestly recommend that the Indians be allowed to build these dams (two at least), and that they be authorized to operate them by charging toll for logs passing through to the lower waters. The Indians could do all the work, and should be permitted to reap the reward.

LAC DU FLAMBEAU.

This reservation is located near the center of Lincoln County, Wisconsin, being around the Flambeau Lake, and contains 69,824 acres. Belonging to these bands we have 542 Indians who live almost entirely by trapping, hunting, and fishing. They are rovers in every sense of the word, having no houses or permanent homes. They are visited each year by the agent, and such goods and supplies as the department furnished are distributed to them as presents. The appropriations not being large enough to supply employés, therefore no civilizing measures have been introduced here. This is to be regretted, as these Indians are being spoiled by the "do-nothing policy." They are willing to work, but want of funds to furnish them bread to eat is rapidly making a band of worthless vagabonds. It seems as though the general government ought to have pride enough to rescue these people while there is time. Five thousand dollars a year judiciously expended for labor in building houses, clearing land, and supplying cattle to these Indians would in a very short period place them beyond want, while the present policy of leaving them to their own inclinations will make a class of miserable paupers, without knowledge or disposition to be anything else, and the State will sooner or latter be called upon to step in between the Indian and general government and exercise some of its Christian charities. These Indians must be aided or they are lost beyond redemption. Will not some member of Congress champion the cause?

We have belonging to this agency three reservations in Minnesota, as follows:

FOND DU LAC,

located along the line of the Northern Pacific Railroad, in Carlton County, contains 100,121 acres. Belonging to this reservation there are 404 Indians. They are a thrifty, hardworking people, living almost entirely off their own labor. The young men are found in the logging-camps, saw-mills, and on the railroads. The old men and women hunt, fish, gather berries, and otherwise assist in providing food. But few families live upon the reservation.

GRAND PORTAGE,

located on Lake Superior, and south of Pigeon River and north of Duluth. Here we have 262 Indians claiming a territory of 51,840 acres of perhaps the poorest land the sun ever shone upon. The Indians, however, have done well, living almost entirely without government aid; the old men and women at hunting, fishing, and trapping, the young men as packers and guides into the mining districts along both the American and Canadian lines. They have about 15 or 20 acres on the Grand Portage Bay under cultivation, and this seems to be the only soil in that vicinity worthy of the name. I have eaten some most excellent potatoes grown upon this bay. Grasses do well anywhere on Lake Superior, and even here among these rocks can be found plenty of fine, nutritious grass.

BOIS FORT.

These bands, numbering 797 Indians, have a reservation of 107,509 acres lying in unsurveyed territory, about 40 miles northwest of Vermillion Lake, in Minnesota. They have mingled with the whites but little, therefore have but few of their vices. They roam, fish, hunt, and trap for a livelihood. They dress in civilized costume, and a few of them sow and plant and harvest, live in houses, and have some of the ordinary home comforts, but they are few indeed.

Two years ago the present agent made an effort to gather them all upon Vermillion Lake. We had the country explored in and about the reservation, but found no agricultural lands. In purchasing their lands about Vermillion Lake in 1866, the government seems to have had but one idea in view, to wit, "to get rid of the Indians." They have been banished to perhaps the most wretched of all lands or rocks in Northern Minnesota. Their treaty stipulates that a farmer shall be provided. A farmer! Think of it, on such a rock. One would infer from reading it (the treaty) that they had a garden-spot, but the explorers report not a spot upon which to plant a potato. There is not a road within 40 miles of the reservation. The treaty is rapidly passing away (half gone), soon they will have nothing left, and yet the department will not change its policy of consolidation, and make an effort to reclaim these people by inducing them to locate about Vermillion Lake, where soil at least can be found, where roads lead to them, where their wants and needs can be supplied. Why was this country explored; why an expenditure of funds in looking at the country, if no change in the location was intended? Why do anything for them if they must be "sent to White Earth"? Now, they will not go to White Earth as a tribe; perhaps a few could be induced to go, but a large portion, perhaps five to one, would prefer to locate about Vermillion Lake. Why not give a chance before the annuities expire? Try this location for a few years, and if they then desire to move, or a few can be persuaded to locate upon any other reservation, all well, but if not, we would have done our duty toward them. We most earnestly renew our recommendations of last year, that about 1,000 acres of land on the south side of Vermillion Lake be set aside for agricultural and educational purposes, and that the Bois Fort Indians be induced to select homes and settle thereon, and that the boundary be defined, and that the employés be permanently located as per my special report on this subject on July 14, 1877.

Schools.

Our schools have been well attended. Books for more advanced scholarship have been a constant demand, and the statistics from teachers and farmer show a gradual improvement. The free lunch system at Red Cliff and Bad River has been continued all the year, and is without doubt the most successful medium through which to reach poor and hungry children.

The Wisconsin scare,

as it is called, might have reached immense proportions had not the officers of the Indian Bureau taken a firm stand against the possibility of such a thing as an Indian outbreak among the Chippewas. The Chippewas have grievances that would make white men tear their hair and howl from one end of the country to the other, but they prefer to submit quietly and peaceably to the powers that be, praying without ceasing, hoping continually that the good men of the Great Father's household will yet hear and answer their petitions by the necessary legislation. If the government would pay

these poor people half what is justly their due under former treaties, they could and would live comfortably for many seasons to come.

I most earnestly recommend that the annual appropriations be increased to \$20,000 to enable us to stretch our guardian care over the Flambeau Indians who need and require aid so badly. Besides, the old, poor, blind, lame, and permanently diseased will number about 2,000 persons. These should be provided for, and rations issued daily to them. Will the department please urge upon Congress the need of this aid?

Our Indians live upon the large lakes, and must necessarily subsist largely upon fish. I would urge the necessity of large appropriations for net-twine and hooks. I would further ask at least \$5,000 for building houses, clearing land, and opening of farms for those who have taken allotments of 80 acres under the treaty of 1854.

Inclosed I respectfully submit the statistical information called for in your letter of July 1, 1878.

Very respectfully, your obedient servant,

I. L. MAHAN,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

SHOSHONE AND BANNOCK AGENCY,
Wyoming Territory, August 25, 1878.

SIR: In accordance with custom and the provisions of law, I have the honor to submit my second annual report of the condition of affairs at this agency.

In order that all readers may have a correct view and understanding of matters pertaining to the agency, I will carry them back to the year 1868, when, on July 3 of that year, at Fort Bridger, Wyo., while Andrew Johnson was President, was made the treaty between the Government of the United States and the Shoshone and Bannock Indians, by which said tribes obtained a right to the splendid tract of land upon which the *Shoshones (Eastern band)* and *Northern Arapahoes* are now located. The said treaty was ratified on the 16th day of February following, and included both tribes, viz, the Eastern band of Shoshones, under Washakie, and the Bannocks, under the leadership of Pan-sook-a-mootse. But the latter tribe never occupied the reservation but a few months during the winter of 1871 and the spring of 1872, when about 400 of that tribe were present at the agency, but, as they could not agree, being very mean and suspicious one toward another, the Bannocks were allowed to withdraw to the Port-Neuf country, near the Camas Prairies, located in Idaho Territory, and were secured in their rights and privileges in that country by the provisions of the same treaty referred to above, and are known as the Fort Hall Bannocks.

From that time until the present the Shoshones have enjoyed alone, with the exception of roaming bands of Western Shoshones, Bannocks, Crows, White River Utes, and Uinta Valley Utes, the privileges of the reservation. Recently, however, the Northern Arapahoes, under Black Coal and Sharp Nose, equal chiefs, were transferred from the old Red Cloud Sioux to this agency. From this time forward, therefore, the Shoshones and Arapahoes will be identified with whatever pertains to the future history of this reservation, and, although still called the "Shoshone and Bannock Agency" in Wyoming, not a Bannock in the United States has any rights here except those who have been legally incorporated with the Shoshones, numbering but a few.

The Shoshone and Bannock Reservation is located in latitude 43° and 44° north, and in longitude 108° and 109° west. It is made up in part of some of the grandest mountain scenery in the world. The mountains are the source of some of the most magnificent rivers on the continent, and contain within their recesses an almost innumerable number of fresh-water lakes, many of which are of unknown depths, full of the finest trout and thousands of water-fowls, and on whose banks live the beaver, otter, and many other fur-bearing animals. The mountains are very precipitous, and can be penetrated at but few points; they contain an inexhaustible supply of spruce, piñon, hemlock, balsam, and yellow and white pine timber. The whole reservation is the fairest and best watered portion of the Territory, and includes all of the Wind River valleys, which are level, easily irrigated, and from one-half to five miles in width; soil warm and rich, and with ordinary care very productive. No part of the reservation can be considered valueless for all purposes. For agriculture and grazing purposes it is simply a wonderful country. Stock lives all the year without any other care than being herded on the nutritious grasses growing from the mountain tops to the lowest valleys in the greatest abundance. The main obstacles to successful farming are early and late frosts and the ravages of the Rocky Mountain locusts. Crops are sometimes badly damaged from the above causes, but seldom entirely destroyed by the latter.

It will now, I think, be quite proper for me to give a short history of the Shoshones from the time of the treaty until the present, noting some of their struggles for a foot-

hold in this country, the progress they have made, present condition and progress, concluding with a brief account of the Northern Arapahoes.

At the time and long before this country was proclaimed the property and future homes of the Shoshones, it was a wild wilderness, which but few white people, aside from the veteran frontiersmen, Bonneville and "Jim Bridger," had ever beheld, and was so full of hostile Indians that even the Shoshones themselves could maintain their stay here but a small portion of each year, spending the summers in Utah and Idaho, far removed from their enemies, the Sioux, Cheyennes, and Arapahoes, returning late in the fall, when they could do so with safety, to hunt the buffalo during the winter. Conflicts were frequent between the said tribes. The Sioux, Shoshones, and Cheyennes were hereditary enemies. The Arapahoes and Shoshones were at times on terms of peace, but soon after the treaty of 1863 peace was broken again, and all these tribes became engaged in a very bitter and long-continued war. Murder and stealing horses from each other were frequent occurrences, and constituted the mode of warfare adopted—the three tribes against one. They made incursions into each other's country constantly for the purposes of theft and murder, when during this period many a Shoshone brave found his death in his own lodge or within the precincts of the village, at the hands of their active and vigilant foes. Finally, the Shoshones held a grand council and decided that they would strike their enemies a blow that would create consternation in their own homes. Volunteers were called for to go into the enemy's country, for the purpose of stealing the major portion of their herd. Forty-five young Shoshones, as fearless of danger as any men that ever trod the earth, stepped forward and offered themselves for the undertaking. Arrangements were hastily concluded, and the expedition made a cautious reconnaissance of the enemy's situation, and hovered about until a good opportunity presented, when they succeeded in surrounding and driving off several hundred head of horses, starting for home in high spirits, everything at first seeming to work to the advantage of the Shoshones; but they did not know how soon they were to be caught in the terrible meshes of the web which had been weaving. The enemy soon learned of their terrible loss, and, hastily collecting, gave pursuit, and the Shoshones were destined to suffer a sad defeat, even the elements seeming to favor their foes. A heavy snow-storm setting in, the trail could be followed without difficulty, and the fleeing Indians were soon surrounded, but for a whole day defended themselves bravely. Being armed with the old-style Army revolvers, they soon became useless in the wet, drifting storm. Their enemies closing in, shot the last man of them, using the bow and arrow, and leaving every Shoshone on the field for dead. Three of them revived again, and ultimately reached camp, one of them crawling 18 miles on his hands and knees through the snow to get assistance. The Shoshones still speak of this as one of the saddest affairs that ever occurred in the tribe.

In 1871 the provisions of the treaty began to be actively supplied to the Shoshones. Houses for the employés and the agent were erected and put in order for occupancy. A saw, grist, and shingle mill and steam-engine were purchased and built ready for work. And now for the first time the Indians, seeing the helping hand of the government stretched forth to them, began to think seriously of settling down and remaining permanently on their reservation and at the agency built for them; but the still frequent incursions from hostile tribes, and the inadequacy of government troops sent here for their protection while they were learning to work, prevented to a great extent their reaping the full benefit of the expenditure made for them. The reservation at this time was also besieged by a most ungodly set of squaw-men, who attempted to set themselves up as guardians of the Indians' rights (?), and by abusing their minds came very near creating insubordination and distrust of the government among them; but the agent was equal to the emergency, and these bad citizens were forced to leave the reservation, order, peace, and confidence being restored.

In 1873 the Shoshones began to take great interest in farming, and there was a greater demand for seed and implements of husbandry than the agent was able to supply. About 200 acres were planted, the Indians giving considerable assistance, but the white employés doing the main part of the work. Everything worked as well as possible, but in July, when the fields were fairly blooming, the locusts made their appearance and badly damaged them; this being repeated several years in succession, the Indians had their perseverance and courage tested to the utmost.

A day-school was opened during this year, and was continued until December, 1874, when, for want of support of the church authorities, it was discontinued.

Rumors of the changed condition of affairs of the Shoshones spread far and near, and they were the recipients of complimentary messages from the dignitaries of other tribes and bands, some of whom expressed a desire to cast their lot with them, and received a warm welcome at the agency and a due proportion of the subsistence and annuity goods of the Shoshones, but as soon as such supplies were distributed and consumed these new-found friends quietly withdrew, leaving the Shoshones poorer, if not wiser people.

The years 1874-'75-'76, for various causes, show no very great progress made by the

Shoshones. Greater obstructions than ever before were thrown in their way. Hostile foes were more troublesome than usual, rendering it necessary to keep constant watch by the Shoshones over their herds of horses, thus interfering greatly with other work. Yet, notwithstanding the Shoshones remained at their agency, many of the young men enlisted under General Crook to go and fight their old enemies, the Sioux, during the year, where they behaved admirably. War operated for the time being against the good of the Shoshones, as having a tendency to break in upon their partial quietude, and retarding progress in matters pertaining to civilization. But a terrible and relentless foe had to be overcome in order to have continued peace and order and safety to life and property, and the Shoshones showed their willingness to help conquer a peace, by enlisting as scouts and guides to the United States troops. Several serious depredations and horrible massacres of whites and Indians by hostiles occurred during this time; there was a general unsettled condition of affairs on the border. The locust plague still continued, and in all the poor Shoshones appeared to be the greatest sufferers, losing the results of hard labor through the latter, and several of their people, men, women, and children, being butchered by the former. The only wonder is, that any progress was made at all, and that during these great trials, the Shoshones themselves were preserved from disaffection, and their steadfast friendship towards the government retained. But such was the case, and we find them to-day more strongly attached to the government, and better prepared to receive instruction, than at any time previously, and progressing in many things.

The Shoshone and Bannock Agency is located on Trout Creek, within 10 miles of the southern line of the reservation. The location was very good in the beginning, but since the cession of the southern portion of the reservation, under the Brunot treaty of 1872, it brings the agency entirely too near the white settlements. The same treaty should have made provision for the removal of the agency to the Big Wind River Valley, 18 miles further north, as said treaty should have been ratified. This would have placed the Indians further inland and the military post between them and these bad outside influences, besides a location in all respects superior to the present site. Trout Creek carries only about 3,000 inches of water, and is the only stream of hard water on the reservation as far as known. Had the agency been placed two miles north of the present point, we would be blessed with pure, good water for use. To overcome the bad effects from the use of Trout Creek water, I propose to turn its waters along the base of the bluff south of the agency, and the digging of a canal from Wind River to the bed of Trout Creek, will at once improve the quality and quantity of our water supply; and this will also give us command of the water to irrigate the whole of the lands in the vicinity of Camp Brown and of the agency.

CENSUS.

The Shoshones, Eastern band, number 1,250 souls. Their number has heretofore been reported at 1,800.

I give below a table of the latest enumeration of both tribes, which will be found to be nearly correct:

Bands.	Men.	Women.	Boys.	Girls.	Total.
Shoshones (Eastern band)	309	573	209	159	1, 250
Arapahoes (Northern band)	189	259	238	252	938
Grand total	498	832	447	411	2, 189

The above is the exact number belonging to Washakie's band of Shoshones, and is all that will be claimed for it hereafter. Their number has heretofore been computed at 1,800, by including some small bands of Western Shoshones, who, however, never really belonged at this agency. The largest number of Shoshones coming under the influence of the agency at any one time during the year was 1,097; of the Arapahoes, 938; total at agency, 2,035.

This leaves a balance of 153 Shoshones who have not been in the past year. These, consisting of eleven lodges, wander about from place to place, but usually stop in Cache Valley, Utah. The leader is Taboonsheya, and he is one of the signers to the treaty of 1868. He is about forty-eight years old, owns 100 head of cattle, and about 50 head of horses. It is believed the direct cause of his absenting himself from the reservation is owing to his antipathy towards Washakie. Taboonsheya is a full-blooded Shoshone Indian and aspired to the chieftainship, but which position was accorded to Washakie, who is half Flathead. The former has just written me a letter saying that he would be in with his camp this fall.

This agency has been visited during the present spring and summer by the White River Utes, Uinta Valley Utes, Bannocks, and Western Shoshones. I have not kept an

account of the number of these visiting Indians, but they would increase the number of Indians at the agency by several hundred. I have firmly and all the time refused to issue rations to visiting Indians, or to be bothered with them, and I have so notified my Indians, those who come here to visit, and also their agents. I fully recognize the evils springing from the habit of visiting in bands, and I believe every agent in the service should give faithful heed to departmental instructions relative to this matter, and see that they are strictly complied with. In this way the practice can be broken up. I would recommend, for the purpose of preventing Indians from a distance from visiting those living within the buffalo countries, especially during the planting and harvesting seasons, that Congress pass a law prohibiting all persons, including Indians, from hunting and killing buffalo during the months of March, April, May, June, July, August, September, and October. There would be no difficulty in enforcing such a law, but the Indians must be provided with abundance of subsistence during the period named.

AGRICULTURE.

I have to report that the Shoshones have shown considerable progress in this industry since my last report. We still adhere to the system of the "model farm"; that is, the Indians, instead of each one having his own individual farm or patch of ground fenced off by himself, have pieces of ground within the large fields fenced for them by the government several years ago. It will be necessary for them to farm in this manner until such time as they can fence and break land on their own account. They planted, this season, all the seed that I was able to procure for them; besides many planted seed which they had saved from last year's crops. They were desirous of putting in much more, but I advised them to plant the seed given them and then commence opening for themselves individual farms, to which they consented, and some of them have been trying to get down timber for the purpose of fencing. But, without wagons, they make very slow progress; dragging poles eight miles on their ponies, they find it rather discouraging, and I am not sure that white people would not, under similar circumstances. The Indians being unused to handling cattle, I have not been able to induce them to try and use oxen for hauling timber and in farm work.

The want of proper care of tools and implements I find a great obstacle. They will leave these things wherever they happen to be when quitting time comes. Parental authority being lax, and the children very destructive, a great many parts of the harnesses have been lost or destroyed, and the hard-wood double-trees and single-trees used up and devoted to other uses. However, the Indians are trying to learn, and I am confident they can be taught to become careful and thrifty farmers. We may not expect that an Indian will do anything properly and right until after many failures. It is necessary to repeat the same lesson many times, and that without showing the least impatience.

The present season there were but few employés at the agency, most of them having resigned because of the low wages. The Indians thought we should be allowed more employés; but when, just as the working season opened, they found those we had were leaving, they became almost discouraged. Calling them together, I advised them not to give up, but to take hold like men and do the best they could, and I believed we could pull through all right. Their courage was raised in this way, and I went myself into the shops and mended their tools when broken, and showed them how to work in the fields. Under these circumstances we planted about 200 acres, principally in wheat, oats, and potatoes, and there is at the present time a better prospect for good crops than ever before in the history of this agency. Having an insufficient number of farming implements, it was a great disadvantage in our operations, but as fast as one party finished up the implements were turned over to his neighbor, and by so doing nearly every lodge put in something, from a small garden to a field of 15 acres. A few lodges took no interest in any of our plans, consequently their supplies of subsistence were withheld from them. This had the effect to drive them into the mountains, where they now are; no doubt they will return and go to work next year.

The Indians are at present engaged in the harvest-fields. Their wheat and oats they have always gathered with the old-style sickle or reap-hook, but the progress they have made will hereafter necessitate the use of machinery. For the first time in the history of this agency Indians have been induced to work in the grist and saw mill, to perform the labor of the slaughter-pen, and they are now being drilled in the use of the mowing-machine and hay-rake. Thrashing is yet to be done, and I shall expect them to learn the use of the thrasher. Some of them have already selected locations for their future homesteads, and are making improvements thereon. Owing to the difficulties under which they have to labor in getting fencing from the mountains, this will be slow. The kind of fences built in this country are made with posts and poles. These poles are very dry pine, from three to six inches in diameter, perfectly straight, and make a very strong fence by nailing or spiking to posts set firmly in the ground. There is an abundance of this timber, but the mountains are so steep and rocky it requires much skill to haul the same down the descent without accident. It cannot be done on wagons successfully nor safely, except by those who have had experience in

the business. The Indians dare not yet venture to bring down loads on the wagon, but drag the timber to the bottom with their ponies, but they see this is too slow a method, and they desire to have wagons to use for this work. These have been estimated for, and the Indians are inquiring about them every week, and I hope they will be furnished.

GOVERNMENT FARM.

This consists of a piece of land fenced off, close by the agency, of 50 acres, nearly all of which was broken up at one time; but little of it has ever been worked. A young man of the Shoshone tribe was induced to take charge of the place the present season. He plowed and put in about 10 acres in oats, which was very good, being almost his first effort at farming. He made up his mind at one time that he had undertaken too great a responsibility, and became so worried that he gave all his crop to me, saying he had "got tired of it." Seeing that I could not prevail upon him to remain at the time, I took possession and have reported the same as planted by the government. When the field was ready for irrigation this young farmer was reinstated in his possessions, and has given it close attention and raised a good crop, and bids fair to become a leading man in the industry. Besides attending to this farm he has also done considerable work on his own place.

SURSTINENCE.

Rations of beef, flour, meal, sugar, coffee, bacon, baking-powder, tobacco, and soap were issued to 1,097 Indians up to April last, when we received an accession of 938 Northern Arapahoes, who were destitute and hungry, and had to be fed. Rations have been issued to these last, the same as to the Shoshones, from the supplies that were on hand, the beef and flour contracts alone being slightly increased. With these two exceptions no additional expense has been incurred on account of this increase in the population of this agency. In distributing the above supplies, it was necessary to equalize the same, in order to carry them through the fiscal year. The amounts issued, according to the established rules, have not given satisfaction to the Indians, and they have expressed their dissatisfaction on a good many occasions, and their clamors for additional rations are sometimes very annoying. I am sure the ration established by the department is not sufficient for sustenance of the Indians, lasting not more than four days; during the balance of the week they provide for themselves. They do this in different ways, by going about begging, digging roots, hunting game, which if they fail to find, do not hesitate to kill a neighbor's cow or steer, provided they do not find one handy belonging to themselves. Others dispose of horses, or sell some of their cattle, to get money to purchase groceries. Such misdemeanors were never committed by them until supplies became shortened. Indians just learning to work should have plenty to eat, not allowed to get hungry, for then they will not work, and are inclined to grumble at everything. They had become so used to supplies being exhausted at this season of the year, they all wanted to know how long they would last, for when they are gone they said, "We want to go on a hunt." When I assured them that provisions would not "give out" they were surprised, and withal not a little disappointed, when they could find no excuse to have a summer chase. However, the buffalo being within easy reach, many of them went without permission, and were gone several days, when they returned loaded with meat, and satisfied. I would earnestly recommend that larger rations be authorized, until their herds increase and they become more extensive farmers. There is no perceptible diminution in the droves of buffalo and other large game within the limits of this reservation. Indeed, I think it is more plentiful since the Sioux and other warlike tribes were driven out of the country north and east of us; and as long as game abounds and within easy reach it removes the time more remotely when these Indians will settle down all the year round to quiet, steady, hard, and constant toil. The difficulty will not be to keep them on their farms during the summer; but if it is the design to retain them at home winters, this cannot be done immediately; it will take some time to accomplish this, and patience must be exercised until this trouble is overcome. We must remember that the chase has such great attractions to many white men that they run any risks, and incur great expense, and travel thousands of miles to indulge in this pleasurable excitement. How, then, can we blame the Indians, who have always lived thereby, if they occasionally break away from the monotony of farm-work, and especially when their appetites are unappeased by sufficient rations from the government?

UNITED STATES INDIAN POLICE FORCE.

Under the rules and regulations for the government of the United States Indian police service, dated July 1, 1878, I endeavored to organize such a company, composed of the Shoshones and Arapahoes, and have succeeded only with the latter tribe. The Shoshones complain of the smallness of the wages, and complain about not getting compensation for their horses also. I have no doubt but that when the force is thoroughly organized it will be competent to maintain peace and good order on the reservation. There is nothing needed much worse than this force. The agency being so close to the

southern line of the reservation, the Indians have many opportunities of leaving the same, and whites to come upon, committing misdemeanors, with small chance of being detected. Their advantage is increased by the fact that across the line are located, to all appearance, a graceless set of whites, whom I have reason to believe organized to carry on illicit traffic with the Indians in the way of furnishing them with whisky and cartridges, and of inducing them to steal from each other, and of buying stolen property. I am trying to detect these parties.

SCHOOLS.

Although the agent has labored diligently with those in authority, both in church and department, since taking charge fourteen months ago, it is but recently that a teacher was secured and a day-school opened for the Indian youth. Present indications are that no difficulty will be experienced in having a full attendance at schools, provided necessary aid is not withheld from us in the future as it was in the past, for, as represented heretofore, and thoroughly demonstrated at this agency, a day-school cannot be made entirely successful as long as the Indians have lodges to live in. It must be manifest to all practical minds that to place these wild children under a teacher's care but four or five hours a day, and permit them to spend the other nineteen in the filth and degradation of the village, makes the attempt to educate and civilize them a mere farce. * * * Preparations are being made to open a boarding and industrial school. Estimates have been forwarded for an additional school-building, which it is hoped will be completed the present season. A day-school, while it is better than to have none at all, yet must continue to be, for reasons already given, very unsatisfactory to both agent and teachers, and of comparatively small benefit to the Indians. The school has been placed under the charge of Mr. J. W. Coombs, a worthy man, who is laboring with commendable zeal for the good of the Indians. The progress of our school will be reported from time to time.

MISSIONS.

The care of the Indians' education and religious training was assumed some years ago by the Protestant Episcopal Church, but there has been no mission established as yet, not, however, because this is not an inviting or promising field for opening and conducting work of this character, but owing to a want of means. It is hoped this matter will not be long delayed; for a mission must be considered a very important part of the service at an Indian agency. A Sunday-school has been opened under the supervision of the teacher, and is regularly attended by all the white and many Indian children, giving satisfactory evidence that all that is required is to have some good man to lead the way. Such an one placed in charge of this people as their minister, would receive a welcome by the Shoshones and the Arapahoes now.

HEALTH.

We cannot always tell, from the amount of medicine called for at this agency what the state of health of the tribes is, as they suffer from many imaginary diseases, and call on the physician for treatment of these, as well as real complaints. They generally wish to prescribe for themselves, and thus become at once both patient and physician. I have instructed the doctor in no instance to give an Indian medicine unless his condition was such as to require it. There should be a resident physician for these Indians, who would then have time to visit the sick and deal out remedies to them in their lodges, which would be far better and more economical than as now. They come to the medical dispensary calling for such medicines as they think they need or desire to have. A hospital is needed.

THE AGENCY TRADER.

Mr. James K. Moore, who keeps a large supply of goods on hand for the military and Indian trade, is not located at the agency, but at Camp Brown, he being also post-trader. His store is usually well supplied with such articles as the Indians usually purchase. This trade is changing rapidly, and is due to the change taking place gradually in the Indians themselves. Many articles a few years ago were not called for at all, such as fancy soaps, articles of kitchen furniture, dried and canned fruits, and all kinds of groceries. There is now a large trade built up by the demand of the Indians for these articles. Among the Shoshones the trade in beads, paints, and trinkets has fallen off greatly during the last five years. Mr. Moore's dealing with the Indians, as far as I have the knowledge, gives general satisfaction. His trade with them has been reduced to a cash basis.

When the Arapahoes came to the agency in the spring, they made a complaint of the trader not giving them enough for their furs. Upon inquiry I found that the "cash system" had to a great extent cut off the "extras" or presents which they had always been used to, and this trader gave them no presents. I told them they could call for another trader for themselves whenever they chose, and I would recommend a good man, but I have heard no further complaint.

AGENCY HOUSES,

of which there are sixteen, consist of the following: Agent's dwelling; six employés' dwellings; stone fort, 20 by 20; office, 32 by 25; log school-house, 32 by 16; issue room, 24 by 16, log; frame saw and shingle mill, 40 by 20; log smith-shop, 24 by 17, (worthless); frame grist-mill, 24 by 20; frame warehouse, 40 by 20. The agents and employés' dwellings were all put in good repair during the year. The other buildings are in bad repair; especially is this the case with the saw and shingle mill; this machinery, including the engine, has been standing since erected, seven years ago, with little more than a roof over it, exposed to the elements and the destructiveness of the Indians, and has suffered more damage in that time than twenty years' careful usage would have inflicted. The so-called warehouse looks well on paper, but is decidedly an unsafe place to keep supplies in of more value than a sack of corn. It has been entered several times during the year, probably by Indians, and small thefts of subsistence committed. The condition of this building was fully represented to the department in my last annual report, and estimates sent in for a suitable one, but which was considered unfavorably by the department. The department does itself and the agent great injustice by making me responsible for the safe-keeping of such a large stock of supplies in such a place. I trust soon to see a better building provided.

INDIAN HOUSES.

There are fifteen on this reservation, and three more partially completed being erected, one by Washakie and two by half-bloods—most of them in a bad state of repair. Some are occupied by Indian families; three are uninhabitable, the doors and windows being broken to pieces, and the floors and stairways chopped up. The above shows the destructiveness rampant among the children in the village. Funds were estimated for last year to make these buildings habitable, but nothing was remitted, and the buildings, though only erected in 1873, are fast going to decay. The tent or lodge should give way to the house. No more tent-cloth should be furnished by the government than to keep the Indians from suffering, until they can build houses for themselves. I think they can soon be taught to build log huts for themselves, which are good enough, such as are occupied by thousands of white families. This will break up the habit of moving about from place to place whenever the notion takes possession of them. By persistent and continued effort in this direction, this can surely be accomplished.

CRIMES AND MISDEMEANORS

committed on this reservation during the past year have been mostly petty thieving, and confined almost exclusively to Indians against themselves, and within the Shoshone tribe.

The present is the first year since this country was settled by whites that violent deaths of friendly Indians and whites have not occurred at the hands of hostile enemies. It has been remarkable for the reign of peace and quietness in this regard.

Whisky, as usual, has been introduced upon the reservation quite frequently, undoubtedly by white persons banded together for the purpose, and the traffic is conducted so secretly that no evidence has been collected pointing to the guilty parties. And while the local authorities and others in the vicinity of Lander have made complaints to me of the frequency of drunken Indians in the neighborhood, yet not one of them, nor of the other citizens of the place, are able, or say they are not, to give me important information that would lead to the detection and punishment of the parties engaged in this traffic. The Indians who know will not inform on those from whom they get liquors. The only available plan, it seems to me, by which the parties can be discovered and their arrest affected, is to employ a secret detective.

CLAIMS FOR SPOLIATION.

But one claim of this kind, and that against the Shoshones for \$500, has been presented during the year, and is now undergoing examination. Owing to the remoteness of the period on which the act was alleged to have been committed, it will require considerable time for proper investigation.

SETTLERS.

The white settlers alluded to in my first annual report still remain on the reservation, being located on their several claims, increasing their stock and improvements, and, of course, still further encroaching on the Indians' rights. The claims of said whites were long ago appraised, and Congress should pass a law without delay authorizing the liquidation of the same, or else to dispossess the claimants and settle the matter by law afterwards. I would earnestly recommend that some enactment be made by which said settlers may be removed and the Indians given their rights.

NORTHERN ARAPAHOES.

This band is a remnant of the once powerful tribe of that name, inhabiting the mountains and plains of Northern Colorado, Western Dakota, and Eastern Wyoming.

They have met many misfortunes within the past few years, by which they have become thoroughly subjugated, and their numbers reduced to 938 souls. Their character is peaceable, and they are better developed mentally and physically than many other tribes. The other bands constituting this tribe were removed several years ago to the Indian Territory; these refused to go to that miasmatic country, and have been underlings of the Sioux, until recently transferred from the Red Cloud to this agency. They have conducted themselves quietly and peaceably since their arrival, and have made a permanent peace with the Shoshones and the surrounding tribes. They are in such indigent circumstances as to be wholly unable, without generous assistance from the government, to speedily emerge from their present state of mendicancy. When the steps taken by the government to furnish these people with food and other supplies and implements of farming are completed, and the Indians have a chance to use them, I predict that they will make a far better showing, in a shorter period of time, than many others who have possessed advantages that this band will never experience. They express themselves pleased with their treatment at this agency, and are especially grateful that the department permitted them to come here, instead of compelling them to journey to the Indian Territory. It shall be my endeavor from the beginning to induce these people to improve each one his own farm. I think time will develop them into thrifty and industrious people.

TRANSFER.

This subject has recently been presented to the Shoshones and Arapahoes, and in a council held at this office, which was generally participated in by the chiefs and their councilors, they have expressed their preferences for a civil instead of a military agent.

Before closing, I wish to express my grateful sense of the kindly feelings which have marked the intercourse, socially and officially, between the officers of the military department and myself. I have many times received from them good and timely advice, and have ever found them ready to see that every just order issued from this office was strictly complied with.

In conclusion, I desire to say that while I am aware that we have come far short of what is expected of us by the department, yet I am sensible that we are making progress, it may be slowly, yet nevertheless surely, and beg that the authorities will remember that we have a *savage* people to deal with, and that while it is the chief duty of an agent to induce his Indians to labor in civilized pursuits, he should be clothed with a large discretion with regard to carrying out the various orders promulgated by the department.

I have the honor to invite attention to the inclosed reports of teacher and physician

Very respectfully, your obedient servant,

JAMES I. PATTEN,
United States Indian Agent.

The COMMISSIONER OF INDIAN AFFAIRS.

REPORT OF THE SIOUX COMMISSION.

WASHINGTON, D. C., *August 28, 1878.*

SIR: We have the honor to report that, under an act of Congress, approved June 20 1878, and in obedience to instructions from the Interior Department, dated Washington, June 28, 1878, the commissioners appointed under the aforesaid act convened at Yankton, Dak., June 4; present, Col. D. S. Stanley, U. S. A., Mr. J. M. Haworth, Rev. A. L. Riggs, Mr. Ed. K. Hayt, secretary. The latter was duly qualified as disbursing officer for the commission.

Upon the 5th of July the members proceeded to the old Ponca Agency (now occupied by Spotted Tail), accompanied by the honorable Commissioner of Indian Affairs, Mr. E. A. Hayt. The Brulé tribe under Spotted Tail had been duly notified of the coming of the commission by their agent, Lieut. James M. Lee, U. S. A., and met in council on the afternoon of the 6th. The council was opened by the honorable Commissioner, Mr. Hayt, who fully explained to the Indians the law, the delays owing to the lateness of the appropriation, and the importance of settling the Brulés near the Missouri, thus avoiding the expense of overland transportation.

Spotted Tail being the authorized speaker for the Indians, followed in a speech in which he went over a long list of promises made to him and his people by former government agents and commissioners and unfulfilled. He complained bitterly of being delayed so long this summer upon the Missouri; claimed this had caused many deaths in his camp. He recited the promise of the President, made to him in Washington last fall, that his people should settle in the place of their choice, which place he described as the South Fork of the White Earth River. He expressed a determination of breaking up his camps twenty miles east of the Missouri in ten days, and setting out for the place of his selection; made threats that he would burn up the present agency buildings; was rather arrogant and dictatorial, and was opposed to the commission visiting and examining the country he had chosen. His speech, summed up, meant that he would not settle upon the Missouri, and that he would settle nowhere but on the South Fork. It was evident that both the manner and words of Spotted Tail's speech were for Indian populace.

General Stanley spoke on the part of the commissioners, carefully explaining to the Indians the intention of the government to settle them in permanent homes; the desire to have them contented; the necessity for economy, and finally the intention of the commission to visit the South Fork country notwithstanding Spotted Tail's objections. This ended the council. The commission looked over the country some ten miles to the eastward of old Ponca Agency, and looked into the valleys of the Niobrara and Ponca Rivers. The country is comparatively destitute of timber, and the grass is of varieties which the winter kills, and only a small band of Indians, say 300 to 500, could ever become self-supporting there.

On the 7th of July, the commission took steamboat for Red Cloud Agency, at which place they arrived on the 10th. Dr. James Irwin, the agent, had notified Red Cloud, chief of the Ogalalas, of the coming of the commission, and upon the evening of the 11th a council was held at the agency, at which first the honorable Commissioner of Indian Affairs, and after him General Stanley, on the part of the commission, fully explained to the Indians the object of the law, the mission of the commissioners, the disadvantages of their locating far from the Missouri River, and the intention of the commissioners to thoroughly examine any country they selected for their homes. The chief, Red Cloud, had been instructed and delegated as the representative for the tribe. He made a very dignified reply without any show of bad temper. He recited the hardships his people had undergone; spoke of the many deaths that had resulted from their stay on White Earth River; expressed the great willingness and desire of his people to settle down and try to make a living for themselves. He then took from his wallet a pamphlet containing the account of proceedings of the delegation in Washington last fall, and pointed out the promise of the President of the United States, that provided the Ogalalas went to the Missouri for their goods and provisions this last winter, then this spring they would be allowed to select any location within their reserve for their permanent home. In accordance with this they had unanimously selected Big White Clay Creek, and this place, and this alone, would satisfy them. After this addresses were made by Commissioners Haworth and Riggs. This ended the council.

The Commissioner of Indian Affairs, Mr. Hayt, left for Washington on the 12th, and upon the 13th the commission, having procured escort and transportation, and being themselves handsomely fitted for the plains, through the courtesy of Maj. P. D. Vroom, Third Cavalry, commanding the post at Red Cloud, set out to examine the country chosen by these two tribes of Sioux for their future homes. The first two days and a half were spent in making 65 miles to the traders' stores at the forks of White Earth River. The road follows the Yellow Medicine Creek most of the way, and

leads southwest. There is some good grazing land on the Yellow Medicine, but the land is of the bad lands kind, full of alkali, with flats of wire grass, and unfit for cultivation. The water is alkaline and bad. No timber for building.

After nooning the third day at the crossing of White Earth River, we encamped ten miles above the mouth of South Fork of White Earth River and upon that stream. The contrast between these two branches of White Earth River is very great. The South Fork has a gravelly bed, clear, fresh, and good water, is easily fordable at all points. The North Fork, or the main river, has a bed of quicksand, is difficult to cross, and the water is the very worst found in any river of the great plains, being strongly charged with various alkaline salts, and carrying such a quantity of fine, impalpable powdered earth, gathered in the bad lands, that the running water resembles ordinary whitewash, and differs from the muddy waters of the streams of the Missouri Basin in the fact that the water does not settle when dipped up, but remains turbid and unfit for use. Animals will not drink it if they can find other water, and as wells dug in the White River bottom furnish unwholesome water, this deficiency of water fit to use is an insurmountable objection to the valley of the main White Earth River as a home for Indians.

The main camp of the Ogalalas, under Red Cloud, was near where we camped the night of the third day out, 75 miles from their agency. This is about as close to the Missouri River as this tribe has been, and is as close to the present Red Cloud Agency as wood, water, and grass combined could be found for their use and the subsistence of their animals, and for last nine months they have packed out their subsistence from their agency on the Missouri River the best way they could. This fact alone shows that with a little aid in the means of transportation, and a little organization, these Indians can soon be educated to do their carrying business, and at once solve this vexed subject of transportation.

Following up the valley the fourth day, we found a valley varying from one-fourth to three-fourths of a mile wide, with a goodly proportion of land adapted to cultivation, very fine grazing lands, but with very little timber; camped the fourth night about 30 miles, by the valley, above the mouth of the South Fork.

At this point the pine timber sets in, and continues on both sides of the South Fork for about 45 miles. The pine is found in all the ravines leading into the valley of the South Fork, and is in sufficient quantity to last a community of the size of Spotted Tail's band of Sioux for many years in the future. The pine is not of the best variety, and growing as it does in ravines and cañons can be gotten out only by hard labor, but it will answer all purposes of building and fencing for the Indians. At a point below the middle of this stretch or belt of pine timber a strong creek of water, about 10 miles long, puts into the South Fork from the southeast. This creek, called the Rosebud, is where Spotted Tail said the Brulés wanted their agency. The Rosebud has scarcely any valley, and at its mouth the valley of South Fork is also very narrow; therefore the point selected by Spotted Tail was deemed unsuitable. But the commissioners saw the country sufficiently to convince them that at some point within 5 miles above or below the mouth of Rosebud a good and superior site for an agency and a military post may be found. The commissioners recommend that the agency for the Brulé Sioux, known as Spotted Tail's Indians, be established here, and that it be named the Rosebud Agency.

The road thence to the Missouri River, at a point below the mouth of White Earth River, is over an easy country for wagons, and would be about 70 miles. The march of the commission westward from the Rosebud was along the course of the South Fork for 80 miles. Thus it occurred that the South Fork was examined from its mouth to its source, a distance of 150 miles. The commissioners were agreeably surprised with the favorable character of the valley. It can best be described as first-class grazing country. For 20 miles above and below the mouth of the Rosebud timber is abundant, and settlements will at first be confined to this region, but rich pasture lands extend the entire length of the stream, and the bottoms, varying from 10 to 20 or 30 acres in each bend of the river, will raise the cereals or any of the vegetables of Minnesota.

The water coming from the sand-hills is remarkably pure, and the South Fork is peculiar in this feature, that 20 miles from its fountains it has as much volume of water as it carries to its mouth. The main fork and its branches containing living water would give valleys of 200 miles and upward, and in the course of time will all be occupied with prosperous ranches for cattle-raising, we hope in the hands of these Indians. Settlers would soon occupy this country if it were open to their enterprise.

From the last water-holes at the head of South Fork, a short march of 11 miles brought us to the Wounded Knee Creek, which, heading in the same line of sand-hills in which the South Fork has its origin, runs north 25 miles into the White Earth River. After a day's rest on this creek we marched 15 miles west to Big White Clay Creek, the chosen stream and country of Red Cloud. This creek is a bold-running stream of good, fresh water, rising in the pine ridge which runs parallel to the northern boundary of Nebraska, and nearly on the boundary line. The creek has a course nearly due north 25 miles into the main White Earth River. The bottom varies from one-fourth to a

mile in width, and has arable land from its source to its mouth. The timber on the creek is sparse and only sufficient for winter cover for cattle. The fine timber on the head forks and lateral ravines is practically inexhaustible, but can only be utilized by hard labor, owing to the broken country where the timber grows.

The creek was thoroughly examined by the commission and found to be an excellent home for Red Cloud's band of Ogalala Sioux, and too limited in extent to accommodate so many people. The timber, the grass, the water, and the land, so far as it is capable of cultivation, are unexceptionable. The Big White Clay Creek was the farthest point westward examined by the commission, and in any case is as far west as the country could be colonized, being within 15 miles from Nebraska on the south, and the same distance from ceded land on the west. The country west of Big White Clay to the Wounded Knee Creek was examined and found to be a rough country of sharp ridges, the ravines filled with pine timber.

Passing eastwardly the creeks emptying into the White Earth River, the Wounded Knee 15 miles, the Porcupine Tail Creek 25 miles, the Medicine Creek 35 miles, the Corn Creek 35 miles, and the Bear-Running-through-the-Lodge Creek 45 miles, were found to be streams of living water, with a fair proportion of arable land on each, with good grass and abundance of pine timber in the ravines on either side of the valley. This pine country extends in a direction nearly east and west from the Eagle's Nest Butte on the east to Camp Robinson on the west, 100 miles, and will furnish timber for 10,000 people for 100 years to come, and is one of the advantages which recommend this country for an Indian settlement.

The Pass Creek, 15 miles east of Eagle's Nest, and the Bad Lands Creek, 30 miles east of the same landmark, can be utilized as stock country, but are distant from timber; yet it is recommended that these creeks be embraced in the territory of the Ogalalas under Red Cloud. This territory, nearly 100 miles in extent east and west, would contain all the land available for settlement south of White Earth River on the Sioux Reservation, and not assigned to the Brulés under Spotted Tail, and would furnish comfortable and profitable homes for the tribe.

It is thought best that the agency should be placed on the Wounded Knee, as the Big White Clay is near the western border of the Red Cloud land. And as the selection of a site for the agency is a matter of lasting importance, it is recommended that this be referred to the Indian agent and the commanding officer of the post.

After returning to the forks of White Earth River, the commission examined the valley of that river to within 20 miles of the Missouri, their attention having been called to this valley by the honorable Commissioner of Indian Affairs. This valley the commission condemned as a home for Indians from the badness of the water of White Earth River (the only water), the sterile soil, and the sparseness of the timber.

The commission were fully aware of the great expense in the matter of transportation in placing the Indians, Spotted Tail 70 miles and Red Cloud 150 miles from the Missouri River, and in council on the 1st August at the Forks of White River, in accordance with instructions received by the commission and as a compromise, it was explained to Red Cloud and chiefs assembled that \$20,000 would be paid them in cattle if they would remain on or near the Missouri River at some new location.

This proposition they received in perfect good nature, but answered that they could not do so; that they could not do anything to make a living on the Missouri; that they had selected the White Clay country for their home while in Washington last fall; that their people were unanimous on going there, and nothing else would content them. These promises, which it appears were really made the Indians, seemed to bar any chance of inducing them to remain on the Missouri. And in fact after a faithful examination of the country the commission were forced to the conclusion that if these Indians, excepting in small numbers, were located on the Missouri they must be paupers dependent on the government forever; whereas if located upon the lands recommended, and supplied with stock and reasonably and honestly assisted, within ten years they have a fair and good prospect of becoming self-supporting, and in an economical point of view it should not be lost sight of that for these Indians to become settled and ultimately self-supporting, with homes of their own, they must have houses; and on the Missouri the materials for houses would have to be obtained from some other locality, and the cost would be greater than the cost of transportation of supplies; hence a removal to a locality where building material can be had ready to their hands would in the end be more economical.

We think these Indians fully realize their own condition. Their country, the Sioux Reservation, is comparatively poor in soil and pasturage; no equal extent of territory east of the Rocky Mountains could be laid off so deficient in natural resources. The game is almost entirely gone, the living wild creatures of the Sioux Reservation would not feed its Indian population one week. The Sioux tribes have lost all the resources of their savage life, they have ceased to live as Indians, without having made one single step toward being civilized men. They realize all this themselves, and they now only need proper help. We believe they can be rescued from barbarism, and can

be made a happy and prosperous people. Surely they merit everything possible for their preservation and elevation to a place in human society. These Indians fully comprehend how much in valuable territory they have given up, and while they believe they are entitled to a living in consideration of their sacrifices, the thinking, serious men among them deprecate the idea of being paupers.

The agent, Dr. James Irwin, and Red Cloud, with a party of twenty and upward of the chiefs and principal men of the Ogalallas, traveled in company and camped with the party of the commission.

The Indians expressed great anxiety to move to their new homes as soon as possible, but a move of such importance should be made deliberately, in order that the best location for the agency and the best roads to the agency be secured.

The return trip of the commission, partly over a road of their own choosing, and mainly upon the divide between the main White Earth River and its south fork, shows that a good wagon-road can be made from the depot on the Missouri, below White Earth River, and the new agency of Red Cloud.

As these tribes have moved so often, and the names of places called after Spotted Tail and Red Cloud have become utterly confusing, it is respectfully recommended that the agency for Red Cloud Indians be named either Ogalalla Agency or Pine Ridge Agency, and, as before referred to, that Spotted Tail Agency be called Rosebud Agency.

We submit an estimate of stock, implements, &c., needed now by these two bands of Indians to enable them to commence their new life. This estimate is not made upon the ultimate needs of the bands, but upon a reasonable beginning in supplying them for one year. The estimate for wagons may appear large, but experience teaches that no appliance of the white man's inventions takes hold of the wild Indian sooner than improved transportation in the shape of wagons; and as Red Cloud's tribe alone has 15,000 ponies, most of them already broken, it is plain what a capacity for work these wagons would give them when fully utilized.

Inasmuch as this commission was appointed to consider matters pertaining to the final settlement of these Indians, we would here respectfully suggest some points which should be made more prominent in our future treatment of them:

First. The individuality of the Indians should be recognized more clearly and decidedly. The efforts in that direction in issuing rations to heads of families instead of to bands have had the happiest results. Each Indian should be made to feel that he sustains a personal relation to the Government of the United States, without regard to the chief he may be under. And each man should have the right to go and select the land he pleases, subject only to the advice of his agent. This may seem a truism, but as regards Indians it is unfortunately not so, for the whole force of the old Indian tribal system is to herd men. And because it is easier for Indian agents to manage them under the same conditions, the temptation is very great to discourage the efforts of the individual Indian who would emancipate himself from this thralldom.

Consequently, a second point we would make is that the domination of the chiefs should be broken up. While the present arrangement of chieftainship among these tribes has had some advantages in the past, it cannot continue to exist without great evil resulting, unless the system is essentially modified in making the office elective for short terms, and limiting its range of authority. For it is next to impossible for an Indian chief of the old style to maintain his pre-eminence and yet be a leader in civilization. However much he may favor civilization and progress theoretically, he soon finds that the roots of his power come from the opposite direction. It is at present the cause of a most unfortunate state of things among Spotted Tail's people. He has found his old power waning, and the only party which could bolster him up is made up of the untamed and thoughtless young fellows of his tribe, who have established what is termed a "soldiers' lodge," and who have put the whole tribe under martial law. Thus a wild, reckless set keeps the peaceably-disposed majority under a terrible terrorism, and Spotted Tail is merely their mouth-piece.

Another thing which we deem important is the segregation of these tribes into small communities. This is not only necessary for political reasons, but it is also an agricultural necessity. The character of the country they are to occupy will require this dispersion in order to settle them upon it. But the Indian is so gregarious that it will require special effort to accomplish this. In the case of Spotted Tail's people, while the main body will be located, according to their desire, on the South Fork of White River, yet it would be of great advantage to allow colonies to return to the Missouri River in case they may wish to do so.

The agricultural resources of the region specifically allotted to Spotted Tail, along the South Fork of the White River, may not prove adequate for the whole tribe; but this want may be met in the way just mentioned, by encouraging some portions of the tribe to occupy the country along the Missouri River. This they will do as soon as the present despotism of Spotted Tail's "soldier lodge" can be broken up. Some four or five hundred might locate in the old Ponca Reserve, utilizing the agency buildings and mills which have been placed there at great expense. Another colony could go in about Whetstone Creek, and another settlement could make the new Missouri River de-

pot below the mouth of White River, their base of supplies. This might require one or more subagents or superintendents of farming, but the expense thus incurred would be more than offset by the saving on inland freight thus arrested at the river.

We would call attention to the urgent necessity for fulfilling the obligations of the treaty of 1876, which guarantees to these Indians the protection of the United States laws. What is needed is the creation of an additional judicial district in the Territory of Dakota, with the necessary officers, and that authority be vested in the United States Indian agents to exercise the powers of justice of the peace, in accordance with the code of the State or Territory in which these Indians are located.

We urge, also, some legislation which shall open the way to giving to these Indians, with proper safeguards, actual title in the lands taken by them as fast as they are ready to occupy and improve individual homesteads. The provisions of the Sioux treaty of 1868, which are continued and made law through the treaty of 1876, authorize the issue of certificates of occupation, to be recorded in a Sioux land-book. But this provision is practically of no value whatever, and fails entirely to meet the want of any Indian who steps out of the Indian ways into the ranks of civilized men, which is absolute ownership of the land he lives on. How much importance the Indian places on this may be seen in the sacrifices which those of this same stock have made to gain it: in the Flandreau Colony, which went off from the Santees and took homesteads on United States lands, and more recently, in the Brown Earth Colony, which has gone off from the Sisseton Agency for the same purpose; in both cases abandoning present advantages in the way of rations, annuities, &c., for the purpose of obtaining foothold somewhere as men.

We would also point to the very encouraging efforts made in the same direction by the Santees and Sissetons who have remained on their reservations, and who for ten years have been asking and working to gain individual titles to the lands they there occupy. We also point to the energy and enterprise of the colony from the Cheyenne River Agency, located on the east side of the Missouri, at Peoria Bottom, which has but recently come out of one of the wildest of the Sioux tribes, but now forms a community of peaceable farmers, who are anxiously waiting for legal titles to the lands there surveyed for them. We point to these to show the hopefulness of work in this direction and the pressing need of legislation which shall help all of these people to come on to the platform of civilized men.

The commission spent 22 days in tent-life, and traveled about 400 miles with wagons and upward of 200 on horseback. A large part of the wagon-route was new and through an undescribed country; the marches on horseback were over a very rough country. We had heavy rains and high water during the greater part of our march.

In conclusion, we desire to acknowledge courtesies from the honorable Secretary of the Interior and the honorable Commissioner of Indian Affairs; also to thank Bvt. Maj. P. D. Vroom, Third Cavalry, for most valuable assistance; and also our secretary Mr. E. K. Hayt, for his faithful services.

Very respectfully,

D. S. STANLEY,
Colonel Twenty-Second Infantry, Brevet Major-General.
J. M. HAWORTH.
A. L. RIGGS.

Hon. CARL SCHURZ,
Secretary of the Interior.

NOTE.—We would notice the fact that Red Cloud's people require the undivided services of a physician, whereas they now have only such medical assistance as the surgeon of the post can render outside of his regular duties.

List of articles for Red Cloud's Agency.

1 saw-mill and fixtures and 4 wagons.....	\$4,000 00
150 wagons, wide track, 24 inches, with bows and covers, at \$55	8,250 00
200 sets harness, at \$20	4,000 00
50 plows, at \$12	600 00
10 harrows, at \$10	70 00
20 sets harrow-teeth, at \$3	60 00
75 double and single trees, at \$3.....	225 00
50 hilling-hoes, at \$4	200 00
100 spades, at 75 cents.....	75 00
50 shovels, long handles, at \$1	50 00
25 cross-cut saws, at \$5	125 00
100 hand-saws, at \$1.50	150 00

200 augers, assorted, and handles, at 75 cents	\$150 00
50 mattocks and handles, at \$1	50 00
100 garden-rakes, at 50 cents	50 00
100 scythes and snaths, at \$2	200 00
300 scythe-stones, at 10 cents	30 00
25 grindstones, at \$5	125 00
100 drawing-knives, at 50 cents	50 00
12 broad-axes, at \$2	24 00
250 small wash-tubs, at 75 cents	187 50
250 wash-boards, at 50 cents	125 00
1 fanning-mill	20 00
200 log-chains, $\frac{3}{4}$, at \$2	400 00
500 heifers, at \$14	7,000 00
100 cows, milch, at \$22	2,200 00
	29,216 50

Estimate of articles for Rosebud Agency.

200 axes, with handles	\$300 00
12 axes, broad	24 00
200 augers, assorted, with handles	200 00
250 boards, wash	100 00
200 chains, log, $\frac{3}{4}$ -inch cable	600 00
50 dozen grease, Frazier's	60 00
150 sets harness, double	3,000 00
50 dozen hoes, hilling, socket	250 00
200 hammers, carpenter's	100 00
100 knives, drawing	50 00
100 mattocks, with handles	100 00
1 mill, fanning	25 00
30 plows	510 00
200 garden-rakes	100 00
200 spades	150 00
50 shovels, long handles	50 00
25 crosscut-saws	125 00
100 handsaws	150 00
100 scythes, with snaths	200 00
300 stones, scythe	30 00
25 grindstones	125 00
100 sets of trees, single and double	300 00
250 wash-tubs (small)	187 00
150 wagons, 2 $\frac{1}{4}$ inches, with bow and cover	8,250 00
500 heifers, at \$14	7,000 00
100 cows, milch, at \$22	2,200 00
	24,186 00

REPORT OF COMMISSION TO APPRAISE CHEROKEE LANDS IN THE INDIAN TERRITORY.

PAOLA, KANS., *August 22, 1877.*

SIR: The commissioners appointed by the Hon. Secretary of the Interior to appraise the Cherokee lands in the Indian Territory have the honor to submit the following report:

The commissioners assembled at Lawrence, Kans., in accordance with their instructions, on the 28th of March, 1877, and organized by the election of Thomas P. Kennard, president, and Thomas E. Smith, secretary.

For a detailed account of our action preparatory to entering upon field-work, and for a more minute description of the lands thus far examined, and general history of the proceedings of the commission, your attention is invited to the journal which will be forwarded with the accounts of the disbursing agent.

We reached the Indian Territory south of Arkansas City, Kans., on the 12th of April, and on the following day began the work of inspection, following the suggestions contained in our instructions, with reference to our mode of proceeding, as closely as was found practicable. Our progress was somewhat retarded in consequence of the fact that the military escort which was to accompany us did not arrive until the 29th of April. We were again delayed several days in the vicinity of the Pawnee Agency by the failure of the military authorities to furnish the escort with rations, which failure was doubtless in consequence of the extraordinary floods in the streams of that section. The only other interruption in our work was from frequent rains and high water.

In general, the fractional townships lying along the right bank of the Arkansas River, within our work, are much broken, with little low bottom-land and not much timber. The slopes of the hills are generally too abrupt for cultivation, and are additionally unfitted by frequent outcropping ledges of limestone rocks. This common character extends to from six to eight miles from the river, beyond which the slopes become more gentle, with less outcropping stone and deeper soil.

The valley of the Shakaska River, with the country drained by its tributaries, is exceedingly rich, and the shape of the surface almost perfection. It is quite well supplied with timber of good quality, principally burr and post oak, pecan, hackberry, walnut, and cottonwood. In range 2 east, a stream runs south through townships 28, 27, 26, and 25 north, called Bodoc. The country drained by it is fine, and along the stream there is a fair supply of valuable timber. Probably 90 per cent. of the country drained by the Shakaska River and Bodoc Creek is prairie.

The country between the Salt Fork of the Arkansas River and Red Rock Creek, east of the road which runs southwest from Arkansas City to Fort Sill and west of range 2 east, is quite similar to the valley of the Shakaska, but not so well supplied with timber. In township 24 north, range 1 east, the country is more rolling, with occasional outcropping sandstone.

The country between Red Rock Creek and Black Bear Creek is quite rolling; somewhat too much so. The quality of the soil is not quite so good as that north of Red Rock. The supply of timber is better; probably 10 per cent. of the land is forest.

From the west side of townships 22 and 23 north, range 1 west, going east, the country becomes somewhat broken by occasional ledges of sandstone. The Pawnee lands are quite rolling, abundantly timbered, and well watered. There are many varieties of fine building-stone, easily accessible, in all sections. Portions are rough and rocky, and unsuitable for cultivation.

The country east of the Pawnee lands, lying in the fork of the Arkansas and Cimarron Rivers is quite hilly and rocky; much of it of very little value. It is well watered and timbered; probably 30 per cent. of the country is forest.

West of range 4 east, as far as and including range 3 west, the country between Black Bear Creek and the south boundary of the Cherokee lands is generally of inferior character. It is moderately well supplied with water, timber, and stone, and is better adapted to stock-raising than general farming. Some portions near the Indian meridian are quite broken.

The country drained by Hackberry and Skeleton Creeks is principally of fair quality, smooth surface, with very little timber or stone of value. Much of the land is moderately well adapted to general farming. The country about the heads of Black Bear and Red Rock Creeks, and that drained by Nine-Mile and Sand Creeks, is almost wholly devoid of timber and stone. The surface is smooth and gently rolling, with some sand-hills about the heads of Sand and Skeleton Creeks. The soil is generally of second or third rate.

There is but little timber on the south bank of the Salt Fork of the Arkansas River. There is generally a narrow strip of timber along the north bank, chiefly cottonwood. The country between the Shakaska Valley and Osage Creek is gently rolling, with fair quality of soil. It is scantily supplied with timber, except within six or eight

miles of the Salt Fork of the Arkansas. The country is fairly watered, and moderately well adapted to general farming.

West of Osage Creek, as far as and including the townships of range 8 west, the country north of the Salt Fork of the Arkansas is comparatively poor, and almost wholly devoid of timber.

It is our opinion that the country within from six to eight miles of the Arkansas River is well and best adapted to stock-raising. While generally too rough for cultivation, the soil is good, and the growth of grass good.

Judging by the success of the people of Sumner and Crowley Counties, Kansas, in raising wheat, it can scarcely be questioned that the country from and including the townships of range 4 west, to within six or eight miles of the Arkansas River, and extending south from Kansas to Black Bear Creek, being very similar in character to the adjoining lands in Kansas, is well adapted to the growth of wheat.

Doubtless stock-raising might be carried on successfully in any part of the country east of the Abilene cattle-trail. Cattle have frequently been wintered in this country without the use of prepared food.

It is our impression that the country we have thus far examined is healthful. The drainage is everywhere good. The low valley-lands, especially of those running from west to east, as those of the Black Bear and Red Rock Creeks, are probably somewhat malarious, and we would regard it as important to the health of Indians located on these lands that their dwellings should be located on the highlands.

In valuing these lands, it is our impression that the chief difficulty consists in determining the amount of allowance which ought to be made in view of "the fact that these lands are for Indian occupancy and settlement only, and consequently less valuable than lands open to white settlement." We have devoted our attention carefully to the consideration of this subject. Our conclusion is that, in view of this restriction placed upon their use, these lands are worth about one-half as much as they would be if open to settlement by white people. As far as made, our appraisal is, in our judgment, in conformity with that opinion.

The detailed statement of prices fixed upon the lands thus far examined and appraised will be found in the schedules entitled "Description and valuation of Cherokee lands in the Indian Territory," &c., which will be forwarded with this report.

Having applied for and received permission to adjourn after inspecting the lands east of the Abilene cattle-trail until about the first of September, on the 21st of June we left the Indian Territory near Caldwell, Kans., and proceeded to Wichita, Kans., which point we reached on Saturday, the 23d. In consequence of the fact that the private affairs of Mr. Kennard seemed to him to render it extremely doubtful whether it would be possible for him to continue to serve as a member of the commission, it was determined to meet at Paola, Kans., on the 14th of August for the purpose of preparing a report of the work of the commission as far as it had proceeded. In accordance with this, the commission adjourned at Wichita, Kans., on June 25, and reassembled at Paola, Kans., on August 14. After the foregoing had been prepared it was determined to adjourn to meet at Wichita, Kans., on September 15, in order to resume work in the Indian Territory. The commission then adjourned on August 23.

Very respectfully,

THOM. P. KENNARD,
EBENEZER H. TOPPING,
THOMAS E. SMITH,
Commissioners.

Hon. J. Q. SMITH,
Commissioner of Indian Affairs, Washington, D. C.

PAOLA, KANS., December 12, 1877.

SIR: The commissioners appointed to appraise the Cherokee lands in the Indian Territory have the honor to submit the following additional report:

Messrs. E. H. Topping and T. E. Smith met at Wichita, Kans., on Monday morning, September 17, 1877, and were informed by Mr. William N. Wilkerson, of Cass County, Missouri, that he had been appointed a member of the commission in place of Mr. Thomas P. Kennard, who had resigned. Mr. Wilkerson then took the required oath and was elected president of the commission.

At the same time Lieutenant Cushman, of the Sixteenth Infantry, reported to the commissioners that he was present with a detachment of ten men, and instructed to accompany the commissioners as an escort. Our departure from Wichita was delayed until the afternoon of Thursday, September 20, awaiting the arrival of Lieutenant Cushman's wagon and team. We then left Wichita via Wellington and Caldwell, for the Indian Territory. For a detailed account of the movements of the commission, your attention is invited to the journal of the commission.

It was manifest that the limits of the appropriation would be reached long before it would be possible to complete a personal inspection of each township; hence it was determined to pursue such a route as would to the best of our judgment give us the most general knowledge of the whole body of the land remaining to be appraised within the limit of time which it was supposed might be devoted to the business of inspection, and which was supposed not to exceed six weeks. It was determined to move west, as near as might be found practicable, through the middle of the northern half of the lands, to near the head of Buffalo Creek; thence south through Camp Supply and up Wolf Creek to near the middle of the southern half of the lands; thence east to the Abilene cattle-trail. It was expected that many deviations from a straight course would be found unavoidable in order to secure wood and water, but the difficulties encountered in this respect were much greater than was anticipated. Notwithstanding we provided for carrying a small supply of water, we were frequently forced to limit our movements in consequence of the uncertainty of finding water fit for use. In general, however, the route agreed upon was followed, but the time necessarily occupied in finding a practicable road and suitable camping places prevented us from making as many or extensive excursions to the right and left as we desired and had expected to. Much of the traveling was over precipitous hills, or crossing streams whose beds were either full of quicksand or the more troublesome red clay abounding in much of the country, or through the sand-hills which line the larger streams to a greater or less extent. The many unavoidable hinderances met with rendered it necessary to move as constantly and as rapidly as possible, so that with the exception of occasional delays caused by stormy weather, and two or three times by the breaking of the wagons, we were constantly moving, and our observation of the country was in the main confined to that portion which was in sight of the zigzag route followed from camp to camp. Almost daily one or two of the commissioners made excursions of greater or less extent to the right or left of the route followed by the wagons and escort.

While necessity compelled us to pursue a course which leaves us in some doubt respecting the character of some portions of the Cherokee lands west of the cattle-trail, it is our belief that our opportunities for judging of the great mass of those lands were sufficient to enable us to place a fair average valuation upon them, and it is our further belief that with the information we have derived from a careful examination of the plats of the townships, and field-notes of the surveys, most remote from our line of observation, that we cannot be greatly wrong as to the character of any considerable number of townships.

The reasons by which the commissioners were governed in the valuation of the Cherokee lands while Mr. Kennard was a member of the commission, have been carefully reconsidered and approved.

The lands in the townships of range 9 west, and lying north of the Salt Fork of the Arkansas River, are composed chiefly of sand-hills and flat marshy plains. The timber is chiefly cottonwood along the streams, and scattering black oak among the hills; none of it of much value except for fuel. The country is tolerably well watered. The soil is poor and the land of little value except for grazing purposes.

The country lying west of range 9 west, and north of the Salt Fork of the Arkansas River, is generally smoothly rolling prairie of good soil. It is probably well adapted to wheat. It produces a good growth of nutritious grasses. There is some timber, principally cottonwood and elm, chiefly on Medicine Lodge Creek and Mule Creek. The water is almost all what is called by the people of the adjoining country in Kansas alkali or gypsum water, and is generally disagreeable to those who are unaccustomed to it, and to some it is very offensive and perhaps injurious. Whether water of this character is wholesome for stock may be a question of importance in the ultimate determination of the comparative value of much of the Cherokee lands west of the Abilene cattle-trail.

The country west of range 6 west, south of the Salt Fork of the Arkansas River, which is drained by that stream, is quite similar in general character to that north of the river and west of range 9 west, except that it is almost wholly devoid of timber. The surface is smoothly rolling. The soil is of good average quality. It is not as well watered as the country on the north side of the river. It is probably adapted to wheat, and produces good crops of the indigenous grasses. It is probably well adapted to stock-raising.

The country drained by Eagle Chief Creek is quite similar in the general character of the soil to that north of it on the Salt Fork of the Arkansas. The surface is more rolling, but well adapted to tillage. There is little if any stone of value. There is a scanty growth of timber, principally cottonwood, along the creek and some of its larger tributaries. The country is probably well adapted to stock-raising.

The lands north of the Cimarron River, and west of range 15 west, are chiefly high, rolling hills, too abrupt for cultivation. There is some timber along the numerous small streams of this section, but of little value except for fuel. Along the north side of the Cimarron River there is generally a range of sand-hills, varying in width from

a few hundred yards to three or four miles. The most recently formed of these hills are entirely bare of vegetation, while the greater portion are covered with a scanty growth of grass and scrubby timber of little value. The sand-hill country is of no value except for pasturage.

The water of this section is almost all bad, whether to such a degree as to materially affect its value for stock-raising we have no means of determining. Otherwise, the country is tolerably well adapted to the business.

The country west of the Cimarron River and north of the 6th standard parallel is generally high, rolling prairie, almost wholly devoid of timber. There is a little cottonwood and scrubby elm timber in the valleys of some of the small creeks; also some cedar in the deep gorges at the heads of the streams near the dividing ridge between the Cimarron River and the North Fork of the Canadian and Beaver Creek; but the total amount of timber is insignificant in proportion to the extent of the country. The soil of this section of the country is generally second or third rate. Much of the country—probably not less than half of it—is too rough or rolling for profitable tillage, and the adaptation of the tillable portion to any of the chief cultivated crops of the West is, in our judgment, doubtful. The growth of grass is not heavy, but it is, no doubt, very nutritious, and the country is well adapted to grazing purposes, unless the supply of water is insufficient or its character unsuitable. The water of this section is nearly all of the kind called gypsum or alkali water. The country is generally underlain by beds of gypsum, some of which are 10 or 12 feet thick. Springs are very rare, and the water of the streams not permanent. The adaptation of this section of the country to the use, for grazing purposes, of a permanently-settled people, owning the land in small bodies, is, in our opinion, rendered extremely doubtful by the uncertainty connected with the supply of water and its fitness for use. As an open or free range for stock, the grass might be utilized by taking advantage of favorable seasons, and driving to other sections in times of drought.

The country south of the 6th standard parallel, which is drained by the North Fork of the Canadian River and its tributaries, is generally smooth, rolling prairie. The supply of timber is scanty and of but little value except for fuel. There is some stone of poor quality. The soil is much of it sandy, and generally second or third rate. Along Wolf Creek, chiefly on the east side and the north side of the North Fork of the Canadian River, there are sand-hills extending back from one to four or five miles. The water of this section of the country is generally good, and the supply probably sufficient to render the country, in that respect, fairly well adapted to stock-raising. Much of the country, probably 30 per cent., is too sandy for cultivation, and the adaptation of any considerable portion of it to profitable tillage we regard as improbable. The growth of grass is good, and the land generally well adapted to stock-raising.

The country south of the 6th standard parallel and the Cimarron River, which is drained by that stream, is chiefly exceedingly broken prairie. There is some good tillable valley-land along the Cimarron and the larger creeks, but west of Glass Mountain probably not more than 20 per cent. of the land is plowable. About the heads of the creeks there is some good timber, and in the gorges generally there is a good deal of cedar. There is little stone of value. Beds of gypsum, from 6 to 10 feet thick, crop out near the hill-tops. The water of this section is very similar to that of the country to the northwest which has been spoken of, and we think the same remarks are applicable with reference to the suitableness of the country to stock-raising.

The country east of the Cimarron River and the valley of Eagle Chief Creek, and west of range 6 west, which is drained by the Cimarron, consists of sand-hills, more or less covered with scrubby oak and a thin growth of grass, and open, level or gently-rolling prairie of second or third rate soil. The region of sand-hills lies along the river and extending back from 3 to 6 or 7 miles. This section of the country is moderately well watered. No stone was seen. The timber is of but little value except for fuel. Some portions of the land on Turkey Creek, and about the heads of the small creeks between Turkey Creek and Eagle Chief Creek, are probably fairly adapted to general farming purposes.

It may not be superfluous to state the substance of our observations of the game of the country traversed. We saw two or three hundred buffalo in the valley of Eagle Chief Creek, and about as many more between Eagle Chief Creek and the Cimarron River. In the valley of Buffalo Creek we saw probably from eight to twelve thousand buffalo; in the valley of the North Fork of the Canadian, one thousand, probably. There are considerable numbers of deer and turkeys, chiefly in the sand-hills and along the most heavily-timbered streams. As furnishing a permanent supply of food and other necessities of even savage life to any considerable number of people, the game of the country seems to us worthy of very little consideration.

As a whole, we regard the country referred to in this portion of our report as chiefly valuable for stock-raising. Some portions of it we believe to be adapted to wheat, and we have little doubt that, with experience, a considerable portion of the country will be found adapted to other profitable crops.

On Sunday, November 4, we reached the Abilene cattle-trail and stage-road, near the

stage-station on Skeleton Creek, and started for Wichita, Kans., which place we reached on November 9. Mr. Smith having received intelligence of the severe illness of one of his family, it was decided to adjourn to meet in Paola, Kans., on Monday, November 26, on which day the commission reassembled and began the preparation of this report.

In conclusion, we desire to state that, while seeking to use the money appropriated for the business in which we have been employed, in the most rigidly economical manner, and to limit our expenditure to that amount, we have, in various ways and from various causes, apparently to us unavoidable, exceeded it, which being unauthorized to do, no account is made of such excess.

The journal of the commission will be transmitted with the accounts of the disbursing agent, Mr. Topping.

For the detailed statement of prices fixed upon the lands appraised by us, your attention is invited to the schedules which are entitled "Description and Valuation of Cherokee Lands in Indian Territory," &c., which are forwarded herewith.

Very respectfully,

WILLIAM N. WILKERSON,
EBENEZER H. TOPPING,
THOMAS E. SMITH,
Commissioners.

Hon. E. A. HAYT, *Commissioner of Indian Affairs, Washington, D. C.*

Description and valuation of Cherokee lands in Indian Territory, lying west of 96° west longitude and west of the Osage lands, appraised in 1877, under the provisions of the fifth section of an act of Congress approved May 29, 1872. (Stats. at large, vol. 17, p. 190.)

Description.		Area.	Value per acre.	Total value.	Remarks.
Township.	Range.				
<i>North.</i>	<i>East.</i>	<i>Acres.</i>	<i>Cents.</i>		
20.....	1	20,555.86	25	\$5,388 96½	
21.....	1	23,048.09	62½	14,405 05½	
22.....	1	23,013.70	75	17,260 27½	
23.....	1	23,018.79	62½	14,386 74½	
24.....	1	22,914.45	62½	14,321 53½	
25.....	1	22,517.94	87½	19,703 19½	
26.....	1	23,038.15	100	23,038 15	
27.....	1	22,988.61	75	17,241 45½	
28.....	1	23,002.93	87½	20,127 56½	
29.....	1	15,255.70	87½	13,348 73½	
		220,354.22		159,221 67½	
20.....	2	21,749.12	50	10,874 56	
21.....	2	23,021.34	75	17,266 00½	
22.....	2	23,049.27	75	17,286 95½	
23.....	2	22,945.91	75	17,209 43½	
24.....	2	22,443.43	62½	14,027 14½	
25.....	2	16,901.90	62½	10,563 68½	
26.....	2	21,553.14	62½	13,470 71½	
27.....	2	22,902.78	75	17,177 08½	
28.....	2	22,959.03	87½	20,089 15½	
29.....	2	15,284.49	87½	13,373 92½	
		212,810.41		151,338 65½	
20.....	3	21,800.27	75	16,350 20½	
21.....	3	23,025.09	62½	14,390 68½	
22.....	3	22,986.69	62½	14,366 68½	
23.....	3	14,098.84	62½	8,811 77½	
24.....	3	14,311.73	50	7,155 86½	
25.....	3	52.45	62½	32 78½	
26.....	3	20,239.15	37½	7,589 68½	
27.....	3	22,656.08	50	11,328 04	
28.....	3	17,355.71	62½	10,847 31½	
29.....	3	12,375.07	50	6,187 53½	
		168,901.08		97,060 56½	
20.....	4	21,947.18	75	16,460 38½	
21.....	4	22,985.04	62½	14,365 65	Pawnee.
22.....	4	22,964.52	62½	14,352 82½	Do.
23.....	4	16,214.98	50	8,107 49	Do.
24.....	4	1,017.10	75	762 82½	Do.
24.....	4	2,667.77	50	1,333 88½	

Description and valuation of Cherokee lands in Indian Territory, &c.—Continued.

Description.		Area.	Value per acre.	Total value.	Remarks.
Township.	Range.				
<i>North.</i>	<i>East.</i>	<i>Acres.</i>	<i>Cents.</i>		
25.....	4	84.64	62½	\$52 90	
26.....	4	5,944.63	50	2,972 31½	
27.....	4	2,669.96	37½	1,001 23½	
		96,495.82		59,409 51	
20.....	5	21,716.14	62½	13,572 58¾	Pawnee.
21.....	5	23,026.80	62½	14,391 75	Do.
22.....	5	22,984.06	62½	14,365 03¾	Do.
23.....	5	21,914.48	50	10,957 24	Do.
24.....	5	9,670.56	50	4,835 28	Do.
		99,312.04		52,121 89½	
20.....	6	21,810.38	62½	13,631 48½	Pawnee.
21.....	6	23,053.51	50	11,526 75½	Do.
22.....	6	22,017.76	75	16,513 32	Do.
23.....	6	638.71	62½	399 19½	Do.
		67,520.36		42,070 75½	
20.....	7	21,810.47	50	10,905 23½	
21.....	7	16,637.91	37½	6,239 21½	
22.....	7	7,486.10	50	3,743 05	
		45,934.48		20,887 50½	
20.....	8	21,943.48	37½	8,228 80½	
21.....	8	14,840.29	25	3,710 07½	
		36,783.77		11,938 87½	
20.....	9	17,508.43	12½	2,188 55½	
21.....	9	721.39	62½	450 86½	
		18,229.82		2,639 42½	
20.....	10	4,507.65	25	1,126 91½	
		4,507.65		1,126 91½	
20.....	<i>West.</i> 1	21,659.16	37½	8,122 18½	
21.....	1	22,956.55	62½	18,347 84½	
22.....	1	22,946.43	75	17,209 82½	
23.....	1	22,983.83	62½	14,364 89½	
24.....	1	23,078.05	75	17,308 53½	
25.....	1	22,290.41	75	16,717 80½	
26.....	1	23,007.60	87½	20,131 65	
27.....	1	22,939.48	100	22,939 48	
28.....	1	22,992.48	100	22,992 48	
29.....	1	15,203.63	87½	13,303 17½	
		220,057.62		167,437 87½	
20.....	2	21,614.09	62½	13,508 80½	
21.....	2	22,989.74	62½	14,368 58½	
22.....	2	22,830.95	75	17,123 21½	
23.....	2	22,952.43	75	17,214 32½	
24.....	2	23,051.11	87½	20,169 72½	
25.....	2	22,497.27	75	16,872 95½	
26.....	2	22,915.61	62½	14,322 25½	
27.....	2	22,927.92	87½	20,061 93	
28.....	2	22,899.48	87½	20,037 04½	
29.....	2	15,149.93	87½	13,256 18½	
		219,828.53		166,935 02½	
20.....	3	21,645.30	37½	8,116 98½	
21.....	3	22,955.11	62½	14,346 94½	
22.....	3	23,087.83	62½	14,429 89½	
23.....	3	23,029.62	75	17,272 21½	
24.....	3	23,099.37	87½	20,211 94½	
25.....	3	22,000.03	75	16,500 02½	
26.....	3	23,065.34	50	11,532 67	
27.....	3	23,040.77	62½	14,400 48½	

Description and valuation of Cherokee lands in Indian Territory, &c.—Continued.

Description.		Area.	Value per acre.	Total value.	Remarks.
Township.	Range				
<i>North.</i>	<i>West.</i>	<i>Acres.</i>	<i>Cents.</i>		
28.....	3	23,060.14	87½	\$20,177 62½	
29.....	3	15,103.15	75	11,327 36½	
		220,086.66		148,316 14½	
20.....	4	21,581.56	75	16,186 17	
21.....	4	22,990.58	62½	14,369 11½	
22.....	4	22,977.62	75	17,233 21½	
23.....	4	22,926.51	75	17,194 8½	
24.....	4	23,117.77	75	17,338 32½	
25.....	4	22,427.81	75	16,820 85½	
26.....	4	23,014.12	75	17,260 59	
27.....	4	23,078.12	75	17,308 59	
28.....	4	23,065.74	75	17,299 30½	
29.....	4	15,099.92	62½	9,437 45	
		220,279.75		160,448 50	
20.....	5	21,315.67	75	15,986 75½	
21.....	5	22,933.93	62½	14,333 70½	
22.....	5	23,059.22	62½	14,412 01½	
23.....	5	22,979.70	62½	14,362 31½	
24.....	5	23,093.78	62½	14,433 61½	
25.....	5	22,071.78	50	11,035 89	
26.....	5	22,911.77	75	17,183 82½	
27.....	5	22,856.82	62½	14,285 51½	
28.....	5	22,884.87	75	17,163 65½	
29.....	5	15,089.92	62½	9,431 20	
		219,197.46		142,628 47½	
20.....	6	21,490.07	62½	13,431 29½	
21.....	6	22,958.84	62½	14,349 27½	
22.....	6	22,967.54	50	11,483 77	
23.....	6	22,919.99	62½	14,324 99½	
24.....	6	22,769.58	37½	8,538 59½	
25.....	6	22,851.13	37½	8,569 17½	
26.....	6	21,932.11	37½	8,224 54½	
27.....	6	23,123.57	37½	8,671 33½	
28.....	6	23,183.67	37½	8,693 87½	
29.....	6	15,108.14	50	7,554 07	
		219,304.64		103,840 92½	
20.....	7	13,566.06	50	6,783 03	East of 98° meridian.
21.....	7	14,364.15	50	7,182 07½	
22.....	7	14,372.49	25	3,593 12½	
23.....	7	14,282.29	25	3,570 57½	
24.....	7	14,395.97	25	3,598 99½	
25.....	7	13,523.20	37½	5,071 20	
26.....	7	12,902.72	37½	4,838 52	
27.....	7	13,394.60	25	3,348 65	
28.....	7	13,529.23	25	3,382 30½	
29.....	7	8,680.31	25	2,170 07½	
		133,011.02		43,538 54½	
20.....	7	7,986.79	50	3,993 39½	West of 98° meridian.
21.....	7	8,662.33	50	4,331 16½	
22.....	7	8,617.23	25	2,154 30½	
23.....	7	8,524.68	25	2,131 17	
24.....	7	8,468.91	25	2,117 22½	
25.....	7	9,527.52	37½	3,572 82	
26.....	7	9,180.68	37½	3,442 75½	
27.....	7	9,575.41	25	2,393 85½	
28.....	7	9,429.37	25	2,357 34½	
29.....	7	6,334.57	25	1,583 64½	
		86,307.49		28,077 67½	
20.....	8	21,295.52	37½	7,985 82	
21.....	8	23,046.80	25	5,761 70	
22.....	8	22,990.11	37½	8,621 29½	
23.....	8	23,000.52	37½	8,625 19½	
24.....	8	22,883.74	37½	8,581 40½	
25.....	8	23,035.88	50	11,517 94	
26.....	8	21,626.61	25	5,406 65½	

Description and valuation of Cherokee lands in Indian Territory, &c.—Continued.

Description.		Area.	Value per acre.	Total value.	Remarks.
Township.	Range.				
<i>North.</i>	<i>West.</i>	<i>Acres.</i>	<i>Cents.</i>		
27.....	8	23,040.80	25	\$5,760 20	
28.....	8	23,024.95	25	5,756 23½	
29.....	8	14,919.13	25	3,729 78½	
		218,864.06		71,746 22½	
20.....	9	21,236.70	25	5,309 17½	
21.....	9	23,065.89	25	5,766 47½	
22.....	9	23,052.65	37½	8,644 74½	
23.....	9	23,014.26	37½	8,630 34½	
24.....	9	23,037.39	37½	8,639 02½	
25.....	9	22,917.56	50	11,458 78	
26.....	9	21,947.89	25	5,486 97½	
27.....	9	22,335.89	25	5,583 97½	
28.....	9	22,902.14	12½	2,862 76½	
29.....	9	14,768.44	12½	1,846 05½	
		218,278.81		64,228 30½	
20.....	10	19,285.95	25	4,821 48½	
21.....	10	21,489.71	25	5,372 42½	
22.....	10	22,921.66	37½	8,595 62½	
23.....	10	22,948.56	37½	8,605 71	
24.....	10	22,955.57	37½	8,608 33½	
25.....	10	22,966.08	50	11,483 04	
26.....	10	22,900.04	12½	2,862 50½	
27.....	10	22,066.18	25	5,516 54½	
28.....	10	22,745.33	50	11,372 66½	
29.....	10	14,719.92	37½	5,519 97	
		214,999.00		72,758 31½	
20.....	11	21,390.22	37½	8,021 33½	
21.....	11	21,080.55	25	5,270 13½	
22.....	11	23,046.22	25	5,761 55½	
23.....	11	23,044.14	37½	8,641 55½	
24.....	11	23,136.25	37½	8,676 09½	
25.....	11	23,059.99	50	11,529 99½	
26.....	11	23,042.04	50	11,521 02	
27.....	11	22,971.51	37½	8,614 31½	
28.....	11	22,953.33	50	11,476 66½	
29.....	11	14,755.29	50	7,377 64½	
		218,479.54		86,890 31½	
20.....	12	21,453.23	37½	8,044 96½	
21.....	12	22,882.63	37½	8,580 98½	
22.....	12	20,268.56	25	5,067 14	
23.....	12	22,948.55	37½	8,605 70½	
24.....	12	23,058.52	50	11,529 26	
25.....	12	23,047.72	50	11,523 86	
26.....	12	23,055.14	50	11,527 57	
27.....	12	23,061.50	37½	8,648 06½	
28.....	12	22,981.08	50	11,490 54	
29.....	12	14,906.89	50	7,453 44½	
		217,663.82		92,471 53½	
20.....	13	21,582.12	25	5,395 53	
21.....	13	22,987.51	25	5,746 87½	
22.....	13	20,865.62	12½	2,608 20½	
23.....	13	22,781.15	25	5,695 2¾	
24.....	13	22,955.09	37½	8,608 15½	
25.....	13	22,996.54	50	11,498 27	
26.....	13	22,969.65	50	11,484 82½	
27.....	13	22,925.36	37½	8,597 01	
28.....	13	22,923.63	50	11,461 81½	
29.....	13	14,870.69	50	7,435 34½	
		217,857.36		78,531 32½	
20.....	14	21,810.90	12½	2,726 36½	
21.....	14	23,039.71	12½	2,879 96½	
22.....	14	21,208.32	12½	2,651 04	
23.....	14	21,494.59	25	5,373 64½	
24.....	14	23,171.15	37½	8,689 18½	
25.....	14	22,990.27	37½	8,621 35½	
26.....	14	22,905.45	37½	8,589 54½	

Description and valuation of Cherokee lands in Indian Territory, &c.—Continued.

Description.		Area.	Value per acre.	Total value.	Remarks.
Township.	Range.				
<i>North.</i>	<i>West.</i>	<i>Acres.</i>	<i>Cents.</i>		
27.....	14	22,925.08	37½	\$8,596 90½	
28.....	14	22,981.44	37½	8,618 04	
29.....	14	14,948.54	50	7,474 27	
		217,475.45		64,220 30½	
20.....	15	22,416.11	25	5,604 02½	
21.....	15	22,961.16	12½	2,870 14½	
22.....	15	22,952.65	12½	2,869 08½	
23.....	15	19,308.93	25	4,827 23½	
24.....	15	22,988.90	25	5,747 22½	
25.....	15	23,034.03	37½	8,637 76½	
26.....	15	22,986.44	25	5,746 61	
27.....	15	22,968.97	37½	8,613 36½	
28.....	15	22,990.57	37½	8,621 46½	
29.....	15	15,034.24	37½	5,637 84	
		217,642.00		59,174 75	
20.....	16	22,309.44	25	5,577 36	
21.....	16	23,104.49	25	5,776 12½	
22.....	16	23,058.11	12½	2,882 26½	
23.....	16	23,026.87	25	5,756 71½	
24.....	16	18,909.62	25	4,727 40½	
25.....	16	22,677.66	25	5,669 41½	
26.....	16	22,938.44	25	5,734 61	
27.....	16	22,919.71	25	5,729 92½	
28.....	16	22,945.72	12½	2,868 21½	
29.....	16	14,999.87	25	3,749 96½	
		216,889.93		48,472 00½	
20.....	17	21,926.69	25	5,481 67½	
21.....	17	22,990.63	25	5,747 65½	
22.....	17	23,050.65	12½	2,881 33½	
23.....	17	22,970.46	12½	2,871 30½	
24.....	17	23,094.76	25	5,773 69	
25.....	17	20,534.44	25	5,133 61	
26.....	17	21,391.28	25	5,347 82	
27.....	17	23,135.10	25	5,783 77½	
28.....	17	23,124.71	25	5,781 17½	
29.....	17	14,941.84	25	3,735 46	
		217,160.56		48,537 50½	
20.....	18	22,254.21	37½	8,345 32½	
21.....	18	22,331.72	25	5,582 93	
22.....	18	23,059.99	25	5,764 99½	
23.....	18	22,955.94	25	5,738 98½	
24.....	18	23,252.59	25	5,813 14½	
25.....	18	23,002.54	25	5,750 63½	
26.....	18	21,556.39	25	5,389 09½	
27.....	18	21,558.41	25	5,389 60½	
28.....	18	23,058.63	25	5,764 65½	
29.....	18	14,882.99	25	3,720 74½	
		217,913.41		57,260 12½	
20.....	19	22,005.18	25	5,501 29½	
21.....	19	22,886.85	25	5,721 71½	
22.....	19	22,486.56	37½	8,432 46	
23.....	19	22,856.83	25	5,714 20½	
24.....	19	23,166.54	25	5,791 63½	
25.....	19	23,073.72	25	5,768 43	
26.....	19	23,009.32	25	5,752 33	
27.....	19	18,893.08	25	4,723 27	
28.....	19	23,091.65	25	5,772 91½	
29.....	19	14,837.65	25	3,709 41½	
		216,307.38		56,887 66½	
20.....	20	21,851.33	25	5,462 83½	
21.....	20	23,027.32	25	5,756 83	
22.....	20	23,000.36	37½	8,625 13½	
23.....	20	22,977.56	25	5,744 39	
24.....	20	23,191.30	25	5,797 82½	
25.....	20	23,074.50	25	5,768 62½	

Description and valuation of Cherokee lands in Indian Territory, &c.—Continued.

Description.		Area.	Value per acre.	Total value.	Remarks.
Township.	Range.				
<i>North.</i>	<i>West.</i>	<i>Acres.</i>	<i>Cents.</i>		
26.....	20	23,034.74	25	\$5,758 68½	
27.....	20	21,037.52	25	5,259 38	
28.....	20	21,243.04	25	5,310 76	
29.....	20	14,565.71	25	3,641 42½	
		217,003.38		57,125 89	
20.....	21	21,721.02	25	5,430 25½	
21.....	21	23,002.42	25	5,750 60½	
23.....	21	22,983.45	25	5,745 86½	
22.....	21	22,981.37	25	5,745 34½	
24.....	21	23,134.28	12½	2,891 78½	
25.....	21	23,080.16	12½	2,885 02½	
26.....	21	23,176.65	37½	8,691 24½	
27.....	21	23,116.04	37½	8,668 51½	
28.....	21	22,623.27	25	5,655 81½	
29.....	21	13,178.97	25	3,294 74½	
		218,997.63		54,759 18½	
20.....	22	21,694.82	25	5,423 70½	
21.....	22	23,003.44	25	5,750 86	
22.....	22	22,987.73	25	5,746 93½	
23.....	22	23,032.32	25	5,758 08	
24.....	22	23,063.25	25	5,765 81½	
25.....	22	23,033.84	12½	2,879 23	
26.....	22	23,062.76	25	5,765 69	
27.....	22	22,953.84	37½	8,607 69	
28.....	22	22,959.12	25	5,739 78	
29.....	22	14,982.72	25	3,745 68	
		220,773.84		55,183 46	
20.....	23	21,695.80	25	5,423 95	
21.....	23	23,017.85	25	5,754 46½	
22.....	23	23,003.25	37½	8,626 21½	
23.....	23	22,978.67	25	5,744 66½	
24.....	23	22,765.46	25	5,691 36½	
25.....	23	22,996.90	12½	2,874 61½	
26.....	23	23,052.15	12½	2,881 51½	
27.....	23	22,951.84	25	5,737 96	
28.....	23	22,894.00	25	5,723 50	
29.....	23	15,037.74	25	3,759 43½	
		220,393.66		52,217 69	
20.....	24	21,662.23	25	5,415 55½	
21.....	24	23,023.64	25	5,755 91	
22.....	24	22,998.77	25	5,749 69½	
23.....	24	22,956.30	25	5,739 07½	
24.....	24	22,687.87	25	5,671 96½	
25.....	24	23,038.10	25	5,759 52½	
26.....	24	23,116.58	12½	2,889 57½	
27.....	24	23,116.42	12½	2,889 55½	
28.....	24	23,041.70	12½	2,880 21½	
29.....	24	15,178.67	25	3,794 66½	
		220,820.28		46,545 73½	
20.....	25	21,779.11	25	5,444 77½	
21.....	25	23,030.27	25	5,757 56½	
22.....	25	23,008.86	25	5,752 21½	
23.....	25	22,958.40	25	5,739 60	
24.....	25	22,635.81	25	5,658 95½	
25.....	25	23,003.76	25	5,750 94	
26.....	25	22,984.12	25	5,746 03	
27.....	25	23,000.36	12½	2,875 04½	
28.....	25	23,015.32	12½	2,876 91½	
29.....	25	14,734.60	25	3,683 65	
		220,150.61		49,285 69½	
20.....	26	17,563.30	25	4,390 82½	
21.....	26	16,255.04	25	4,063 76	
22.....	26	16,108.01	25	4,027 00½	
23.....	26	16,001.40	25	4,000 35	

Description and valuation of Cherokee lands in Indian Territory, &c.—Continued.

Description.		Area.	Value per acre.	Total value.	Remarks.
Township.	Range.				
<i>North.</i>		<i>Acres.</i>	<i>Cents.</i>		
24.....	26	15,757.42	25	\$3,939 35½	
26.....	26	12,486.85	25	3,121 71½	
26.....	26	12,553.05	25	3,138 26½	
27.....	26	12,548.88	12½	1,568 61	
28.....	26	12,462.92	12½	1,557 86½	
29.....	26	6,245.64	12½	780 70½	
		137,982.51		30,588 44½	

RECAPITULATION.

20 to 29.....	1 E.	220,354.22		\$159,221 67½	
20 to 29.....	2 E.	212,810.41		151,338 65½	
20 to 29.....	3 E.	168,901.08		97,060 56½	
20 to 27.....	4 E.	96,495.82		59,409 51	
20 to 24.....	5 E.	99,312.04		58,121 89½	
20 to 23.....	6 E.	67,520.36		42,070 75½	
20 to 22.....	7 E.	45,934.48		20,887 50½	
20 to 21.....	8 E.	36,783.77		11,938 87½	
20 to 21.....	9 E.	18,229.82		2,639 42½	
20.....	10 E.	4,507.65		1,126 91½	
20 to 29.....	1 W.	220,057.62		167,437 87½	
20 to 29.....	2 W.	219,828.53		166,935 02½	
20 to 29.....	3 W.	220,086.66		148,316 14½	
20 to 29.....	4 W.	220,279.75		160,448 50	
20 to 29.....	5 W.	219,197.46		142,628 47½	
20 to 29.....	6 W.	219,304.64		103,840 92½	
20 to 29.....	7 W.	133,011.02		43,538 54½	East of 98° meridian.
20 to 29.....	7 W.	86,307.49		28,077 67½	West of 98° meridian.
20 to 29.....	8 W.	218,864.06		71,746 22½	
20 to 29.....	9 W.	218,278.81		64,228 30½	
20 to 29.....	10 W.	214,999.00		72,758 31½	
20 to 29.....	11 W.	218,479.54		86,890 31½	
20 to 29.....	12 W.	217,663.82		92,471 53½	
20 to 29.....	13 W.	217,857.36		78,531 32½	
20 to 29.....	14 W.	217,475.45		64,220 30½	
20 to 29.....	15 W.	217,642.00		59,174 75	
20 to 29.....	16 W.	216,889.93		48,472 00½	
20 to 29.....	17 W.	217,160.56		48,537 50½	
20 to 29.....	18 W.	217,913.41		57,260 12½	
20 to 29.....	19 W.	216,307.38		56,887 66½	
20 to 29.....	20 W.	217,003.38		57,125 89	
20 to 29.....	21 W.	218,997.63		54,759 18½	
20 to 29.....	22 W.	220,773.84		55,183 46	
20 to 29.....	23 W.	220,393.66		52,217 69	
20 to 29.....	24 W.	220,820.28		46,545 73½	
20 to 29.....	25 W.	220,150.61		49,285 69½	
20 to 29.....	26 W.	137,982.51		30,588 44½	
Total.....		6,574,576.05		2,711,923 40½	
Average value per acre.....				41½	

REPORT OF LIEUT. R. H. PRATT, SPECIAL AGENT TO COLLECT INDIAN YOUTH TO BE EDUCATED AT HAMPTON INSTITUTE, VA.

WASHINGTON, D. C., November 22, 1878.

SIR: I have the honor to report that, in obedience to your orders of September 2 last, I proceeded to Dakota, and visited the several Indian agencies from Fort Berthold to Yancton Agency, on the Missouri River, making at each satisfactory arrangements that its proportion of Indian youth of both sexes would be ready on my return, a month later, to accompany me to Hampton, Va., for education in books and manual labor, as you had arranged. I found that the very small number of thirty-four, which you had allowed for the eight agencies named in the order, crippled the effort, and was a beggarly allowance compared with the needs and willingness of the Indians; and when I reached telegraph communication at Fort Sully, I telegraphed a request that I might be authorized to bring seventy-five. You then fixed the limit at fifty.

I returned to Fort Berthold by rail, and, in company with my wife, began the work of gathering up. The Indians at Fort Berthold are more industrious and nearer to self-support in their original state than any others within my knowledge. They are like all other Indians, however, in making the squaws do the greater part of the work. On my return they argued that they could not spare the girls because of their usefulness as laborers, and that education injured this quality. Through the cordial co-operation of the agent, E. H. Alden, the missionary, Rev. C. L. Hall, and his wife, and also of the two teachers, Miss Briggs and Miss Calhoun, I got nine boys and four girls, or rather three girls and one woman. This was more than the proportion from this agency, but I esteemed it the most deserving. One of the girls was especially bright, and there was a general desire to save her from the degradations of her Indian surroundings. The mother said that education and civilization would make her child look upon her as a savage, and that unless she could go with her child and learn too, the child could not come. I brought them both.

The boys from this agency are as follows:

ARICKAREES.—	1. Karnnach (Sioux boy)	aged 16 years.
	2. Tis-cal-f-uh (Laughing Face)	aged 18 years.
	3. Koo-nook-te-a-wan (Shooting Bear); Christian name, George Sharphone	aged 20 years.
	4. A-hu-ka (White Wolf)	aged 20 years.
MANDANS.—	5. Say-Edda (White Breast)	aged 18 years.
	6. Ka-what (Bowlegs)	aged 12 years.
	7. E-corrupt-ta-ha (Looking Around)	aged 18 years.
GROS VENTRES.—	8. Ari-hotch-kish (Long Arm) son of Hard Horn, chief.	aged 13 years.
	9. No-wa-tesh (Tom Smith)	aged 14 years.

The girls are:

ARICKAREES.—	1. Mary (the mother)	aged 26 years.
	2. Anna (the daughter)	aged 10 years.
GROS VENTRES.—	3. Josephine Malnourie	aged 18 years.
	4. Sarah Walker	aged 13 years.

Except Mary, the girls are half-breeds. Tom Smith is a half-breed, and White Breast and Ka-what are one-fourth white.

This material is a fair average of the people, and each subject was recommended by the agent and his educational help.

At Standing Rock the Catholic Church controls the educational and religious work. There were three separate agents in charge during the period of my visits. Father Stephan, the last agent, was quite anxious his agency should be represented. I brought from this agency—

1. Nak-a-pala (John Cadocete)	aged 18 years.
2. U-hah-ke-umpa (Carries Flying)	aged 16 years.
3. Puh-ta-chella (John Pleets)	aged 18 years.
4. Wah-seech-u-a (Rosa Pleets)	aged 15 years.

All Sioux; the last two brother and sister and half-breeds.

From Cheyenne River Agency I accepted nine boys, exceptionally bright and of good standing. Upward of thirty had applied to come:

1. John Robb (son of White Bull)	aged 17 years.
2. Daniel Chautay Wahneechay (son of Chief Little No Heart)	aged 14 years.
3. Henry T. Fisherman (son of Charley Fisherman, who was the first Indian at that agency to adopt citizen's dress)	aged 17 years.
4. Harry Brown (son of Chief White Horse)	aged 14 years.

5. Louis Aygenonghwea.....	aged 15 years.
6. Leroy Shutaschnay	aged 14 years.
7. Joseph Wahu.....	aged 14 years.
8. Samuel Wahminuyah Luzah.....	aged 14 years.
9. Charley Tah-tahu-kah-skah.....	aged 12 years.

The girls arranged from this agency were, at the last moment, led to abandon their intention through the prejudices against Hampton Institute, as a colored institution, existing in the minds of educators at the agency, which the officer who had undertaken the task of getting them ready found it impossible to overcome in the short time at his disposal. I found this prejudice more or less at the several other agencies below, and with like effect as to girls.

From Crow Creek Agency I brought five boys and one girl, all good material, viz:

1. Hu-sau-sau (Grey Legs) Edward Ashley.....	aged 18 years.
2. Mark-pia-monia (Walking Cloud)	aged 19 years.
3. Pa-ma-ni (One who hoots while he walks).....	aged 19 years.
4. Tu-kau-wi-cac-tra (Old Stone) Charles Stone.....	aged 14 years.
5. Xieuga (The Fox) Fox.....	aged 16 years.
6. Zie-wie (Yellow Hand) girl.....	aged 15 years.

These were all recommended by the missionary in charge, Mrs. M. E. Duigan, who had a flourishing boarding-school in operation at the agency, and complained that her accommodations and facilities for pupils were not a tithe of what the Indians demanded; that she was constantly turning away applicants. She gives special and effective attention to the English language.

Six boys were selected and sent from the Lower Brulé Agency by Mr. Walker, the missionary in charge, himself a full-blood Sioux:

1. Ah-leh (Stepping On) Henry Rencountre.....	aged 18 years.
2. Hay-ga-ek-tome (Elk Spider) Francis Rencountre.....	aged 17 years.
3. Ho-tonck (Loud Voice) Joseph Winnebago.....	aged 16 years.
4. Wo-ka-saka (Whips) James Wokasaka	aged 17 years.
5. Otaga (Strong) George Bush Otter	aged 15 years.
6. Ze-do, Lezeds Rencountre.....	aged 16 years.

These boys are all very highly spoken of by the missionary.

At the Yankton Agency, the agent, John W. Douglas, took a lively interest in the plan of manual labor education under civilized surroundings, and gave me eight boys and three girls, all good material, with more or less education in the Sioux dialect, and one boy with a sufficient knowledge of English to act as a medium of communication. They are all Yanctonnai Sioux.

BOYS.

1. George Dolina.....	aged 15 years.
2. Edmund Bishop.....	aged 14 years.
3. Oscar Brown.....	aged 13 years.
4. David Simmons (half-breed).....	aged 13 years.
5. Charley Willis	aged 18 years.
6. Tunkausapa (Joseph Cook)	aged 19 years.
7. Samuel Four Star.....	aged 19 years.
8. Frank Yellow Bird.....	aged 18 years.

GIRLS.

1. Mary Kettle.....	aged 16 years.
2. Lizzie Spider	aged 14 years.
3. Carrie Anderson	aged 12 years.

TOTAL.

Fort Berthold.....	9 boys	4 girls.
Standing Rock	3 boys	1 girl.
Cheyenne River.....	9 boys	
Crow Creek.....	5 boys	1 girl.
Lower Brulé.....	6 boys	
Yankton Agency	8 boys	3 girls.
	40 boys	9 girls.

The needs of educational effort among the wild tribes are very great. The education of small numbers is overborne and lost in the mass of corrupting and demoralizing surroundings. Children at school are hostages for good behavior of parents. Education in the English language is much desired by the Indians themselves, and the agents and other authorities and instructors dealing with the Indians expressed satisfaction that an effort to that end was to be made under more favorable surroundings that can be brought to bear at the agencies.

I left Fort Berthold October 22. On the 24th and 25th encountered a severe snow-

storm below Bismarck, and there was danger that the boat would be frozen in for the winter. It was the last boat to leave Bismarck for Yankton this fall. We reached Yankton October 31 and Hampton, Va., November 5. There was no event *en route* worth special mention. There was sadness at leaving home and friends, but the strange sights of civilization bridged their naturally buoyant natures over that depression, and they soon grew to take a lively interest in every new sight. I remained at Hampton until now, to settle them in their new life. The presence and purpose of the Florida boys has been an incentive, and the new youth have taken hold of their opportunity with a will. I have no doubt the department will realize its best expectations from this effort.

I hand the department herewith a set of photographs taken soon after the youth reached Hampton.

I have the honor to be, very respectfully, your obedient servant,

R. H. PRATT,

First Lieutenant, Tenth Cavalry.

Hon. E. A. HAYT,

Commissioner of Indian Affairs, Washington, D. C.

Table showing status and progress

State or Territory.	Name of agency.	Number of Indians.		Size of reserve (acres).
		Belonging to agency.	On reservation.	
Arizona.....	Colorado River.....	1, 100	1, 100	85, 000
	Moquis Pueblo.....	1, 790	(a)	1, 700, 000
	Pima.....	11, 000	11, 000	210, 000
	San Carlos.....	4, 502	4, 502	2, 528, 000
California.....	Round Valley.....	1, 700	900	102, 118, 18 ³ / ₁₀₀
Colorado.....	Los Pinos.....	4, 000	1, 500	11, 724, 800
Dakota.....	Devil's Lake.....	1, 075	1, 008	275, 000
	Fort Berthold.....	1, 400	1, 291	8, 320, 000
	Red Cloud.....	6, 000	.....	Unknown.
	Sisseton.....	1, 500	1, 500	918, 780
	Standing Rock.....	2, 444	.....	33, 500, 000
	Yankton.....	2, 112	2, 112	430, 400
				
Idaho.....	Fort Hall.....	1, 705	1, 011	1, 800, 000
	Lemhi.....	950	151	64, 000
	Nez Percé.....	1, 656	1, 156	746, 651
Indian Territory.....	Cheyenne and Arapaho.....	5, 054	5, 054	760, 000
	Kiowa and Comanche.....	2, 950	2, 939	2, 968, 893
	Pawne.....	1, 440	1, 440	265, 000
	Sac and Fox.....	1, 719	433	483, 840
	Wichita.....	1, 335	1, 335	.....
Iowa.....	Sac and Fox.....	345	345	692
Kansas.....	Pottawatomie.....	1, 041	737	102, 025
Michigan.....	Mackinac.....	10, 000	.....	40, 000
Minnesota.....	Leech Lake.....	2, 389	2, 389	414, 440
	Red Lake.....	1, 163	1, 163	3, 000, 000
	White Earth.....	2, 858	1, 911	829, 440
Montana.....	Blackfeet.....	7, 600	15, 200	20, 000, 000
	Crow.....	3, 300	.....	Not surv'd.
	Flathead.....	1, 450	1, 450	1, 433, 600
	Fort Peck.....	5, 500	.....	.....
Nebraska.....	Great Nemaha.....	320	300	24, 014
	Omaha.....	1, 100	1, 100	193, 000
	Santee.....	750	750	115, 000
	Winnebago.....	1, 460	1, 444	109, 844
Nevada.....	Nevada.....	1, 800	.....	320, 337
	Western Shoshone.....	3, 600	1, 000	.....
New Mexico.....	Abiquiu.....	700	.....	.....
	Navajo.....	11, 800	7, 000	3, 456, 000
New York.....	New York.....	4, 140	4, 140	84, 240
Oregon.....	Malheur.....	846	290	1, 778, 560
	Siletz.....	1, 085	700	222, 720
	Umatilla.....	1, 000	873	326, 551
	Warm Springs.....	500	300	1, 153, 600
Utah.....	Uintah Valley.....	430	430	2, 500, 000
Washington.....	Colville.....	3, 457	3, 457	3, 536, 000
	Neah Bay.....	1, 022	713	36, 000
	Puyallup, &c.....	1, 731	d1, 133	28, 837
	Quinalt.....	309	227	224, 000
	S'Kokomish.....	800	250	4, 980
	Tulalip.....	2, 900	1, 013	15, 360
Wyoming.....	Shoshone and Bannock.....	2, 188	2, 025	1, 520, 000

a Have no reservation.

b Very poor.

c No estimate.

of Indian tribes in civilization.

Number of acres.			Number of Indians engaged in civilized pursuits.	Number of Indians living in houses.
Tillable.	Pasture.	Timber.		
25,000	20,000	40,000	200.....	
10,000	500,000	.....	1,790.....	1,790.
30,000	14,000	16,000	11,000.....	11,000.
1,600	500,000	25,000	800.....	
6,000	80,000	20,000	Nearly all.....	One-third.
500,000	4,000,000	500,000	10 in farming; several hundreds in herding.	1 (Ouray).
225,000	All.....	50,000	1,075.....	152 families.
4,992,000	832,000	250,000	250 families.....	All.
Unknown	Unknown.	Unknown.	Unknown.....	None.
600,000	.....	.....	All.....	All.
(c)	(c)	(c)	Nearly all.....	250.
286,933	Nearly all.	500	Three-fourths.....	Nearly all.
5,000	1,300,000	495,000	1,000.....	1 family.
1,500	10,000	150	26.....	
10,000	350,000	386,651	600.....	100 families.
20,000	400,000	150,000	250.....	75.
200,000	2,500,000	.....	500.....	200.
50,000	130,000	25,000	All.....	40 families.
120,000	202,560	161,280	1,200.....	1,200.
20%	70%	10%	All.....	1,000.
500	250	192	72.....	
47,119	94,238	7,787	737.....	All in summer; wigwams in winter.
.....	.....	40,000	Nearly all.....	Nearly all.
2,000	.....	412,440	400 families.....	70 families.
1,000,000	1,000,000	1,000,000	925.....	950.
552,960	103,680	552,960	995.....	1,200.
1,000,000	15,000,000	700,000	10.....	30.
One-tenth	.....	.....	15.....	15.
400,000	10,000	998,000	500.....	750.
One-half	Nine-tenths	1 in 50	22.....	
22,000	22,000	1,800	80.....	243.
160,000	175,000	8,000	400.....	600.
25,000	88,000	2,000	750.....	750.
100,000	97,500	9,844	1,444.....	1,200.
.....	Nearly all.	500	800.....	50.
.....	.....	.....	Two-thirds.....	
20,000	1,500,000	500,000	11,800.....	
30,292	9,750	7,795	4,140.....	4,140.
12,000	1,516,560	200,000	140.....	
2,000	1,000	178,120	1,075.....	1,085.
150,000	150,000	80,000	Nearly all.....	50.
5,000	512,000	512,000	300.....	300.
320,000	960,000	318,300	85 families.....	6 families.
32,000	286,000	3,208,000	2,000.....	555.
400	2,000	30,000	20.....	36.
12,235	6,535	19,150	Three-fourths.....	All, during winter.
20	3	223,977	All.....	10 families.
1,000	1,000	1,000	800.....	800.
1,200	10,000	.....	2,900.....	2,900.
31,000	1,520,000	62,030	1,000.....	15.

d In five reserves.*e* Pasture and timber.

Table showing status and progress of

State or Territory.	Name of agency.	Moral condition of Indians compared with neighboring illiterate whites.
Arizona.....	Colorado River	More temperate
	Moquis Pueblo	Equally good
	Pima	do
	San Carlos	do
California.....	Round Valley	do
Colorado.....	Los Pinos	do
Dakota	Devil's Lake	do
	Fort Berthold	Compares favorably
	Red Cloud	
	Sisseton	
	Standing Rock	
	Yankton	About the same
	Fort Hall	
	Lemhi	
	Nez Percé	
Indian Territory.....	Cheyenne and Arapaho	Sup rior
	Kiowa and Comanche	About the same
	Pawnee	Compares favorably
	Sac and Fox	do
Iowa.....	Wichita	More temperate and peaceable
	Sac and Fox	Compares favorably
Kansas	Pottawatomie	do
Michigan	Mackinac	Equally good
Minnesota	Leech Lake	Compares favorably
Montana.....	Red Lake	Lower as to chastity
	White Earth	Much better
	Blackfeet	Compares favorably
	Crow	Nearly the same
Nebraska.....	Flathead	Far superior
	Fort Peck	Rather lower
	Great Nemaha	Superior
	Omaha	Compares favo ably
Nevada.....	Santee	Superior
	Winnebago	Equally good
	Nevada	Compares favorably
New Mexico.....	Western Shoshone	do
	Abiquiu	Equally good
	Navajo	Compares favorably
New York	New York	Superior
Oregon.....	Malheur	Compares favorably
	Siletz	do
Utah	Umatilla	do
	Warm Springs	Superior
	Uintah Valley	Compares favorably
	Colville	do
Washington	Neah Bay	do
	Puyallup, &c	Puyallup, Nisqually, and Chehalis Indians superior to neighboring whites; the other tribes of agency more degraded.
	Quinalt	Compares favorably
	S'Kokomish	About the same
Wyoming.....	Tulalip	Compares favorably
	Shoshone and Bannock	do

Indian tribes in civilization—Continued.

Prevalence of intemperance and disease.	Obstructions to progress of Indians in education, morality, Christianity, and self-support.
Disease prevalent; cause, scarcity of food	Want of facilities, food, clothing, and education—mental and moral.
Intemperance unknown among them	Their location in a barren country and their mode of living in crowded villages.
Not generally prevalent	Want of proper educational facilities, both mental and moral, and need of good land.
No intemperance. Disease to some extent.	Want of educational facilities—mental and moral, farming implements, mill, and employment.
To some extent	Failure of government to fulfill its promises in regard to their lands.
Neither very prevalent	Want of facilities, means, and school accommodations.
Intemperance rare	The need of wholesome, uniform, and permanent laws for their government and protection, and the vexed question of transfer or non-transfer to War Department definitely settled.
.....	
Intemperance unknown	Their unsettled condition and frequent removals.
Prevail to some extent	Bad example of chief and headmen.
.....	Want of proper educational and religious facilities, and necessary assistance from government in regard to agriculture, &c.
Disease to some extent; very little intemperance.	Need of enforced law.
Disease prevails to a great extent	The want of funds.
Disease prevails somewhat	Dissatisfaction with present reserve, small appropriation, &c.
Little intemperance; some disease	Unsettled state of the Indian question.
Intemperance very rare; some disease	Limited appropriations and facilities.
No intemperance; disease prevalent	Lack of school accommodations, missionaries, and farmers.
No intemperance; disease to some extent	Want of schools, cattle, farming implements, and missionaries.
Disease to slight extent	Want of schools and religious instruction; contact with low whites, &c.
Disease somewhat prevalent	Uneasiness in regard to permanency of their homes.
Not to any extent	Want of proper education and instruction, and allotments in severalty.
..... do	Uncertain policy of the government toward them.
About the same as among whites	Want of sufficient funds to establish schools upon good basis.
Both to some extent	Want of good land, difficulty of access to agency, and agitation of transfer question.
No intemperance; some disease	Lack of schools, farming implements, and instruction.
None	Insufficiency of funds to carry on the work
Both almost unknown	Nomadic life and need of missionaries.
Some disease, contracted from soldiers	Lack of proper education, frequent change of agent, &c.
No intemperance; some disease	Need of industrial school, and farming implements.
Disease to some extent	Need of comfortable houses and civilizing influences.
Very little of either	Intrusion and evil example of low whites.
None	Lack of farming implements and failure of government to fulfill treaty stipulations. &c.
No intemperance; some disease	Refusal of Congress to pass Indian homestead law.
Both to some extent . . . . .	.....
None	Limited appropriations, and need of more schools and teachers.
Disease to considerable extent	Want of funds.
None	Lack of opportunity.
No intemperance; some disease	Want of proper education—moral and mental.
Very little of either	Intemperance and want of more settled habits of industry.
None	Want of funds for almost all agency purposes.
To some extent	Need of teachers, and failure of Congress to appropriate necessary funds for purchase of farming implements.
.....	Want of a boarding school, and a settled policy.
Some intemperance; very little disease	Need of farming implements and educational facilities.
None	Lack of educational facilities, farming implements, &c.
To some extent	Lack of means to support schools.
None	Insufficient allowance to pay farmer, and opposition of old members of tribes to civilization.
No intemperance, and but little disease	Lack of competent teachers and educational facilities.
Very little of either among the Puyallup, Nisqually, and Chehalis Indians; but disease is prevalent among other tribes of agency.	.....
Unknown among them	Adherence to old habits and customs.
Both to some extent	Contact with low whites, lack of proper educational facilities and proper title to their lands.
None	Fear of removal and lack of application.
Both prevalent, for which the whites are alone responsible.	Lack of educational facilities, both mental and moral.

Table showing status and progress of

State or Territory.	Name of agency.	Number of Indians who can read and write.		Number of children of school age.	Number attending school.	Variation from attendance of last year.
		In school.	Out of school.			
Arizona	Colorado River .....	.....	.....	50	None	.....
	Moquis Pueblo .....	.....	20	400	No school.	.....
	Pima	25	.....	1,300	60	Same
California	San Carlos .....	.....	.....	500	.....	.....
	Round Valley	48	17	81	47	Slight decrease
Colorado	Los Pinos .....	.....	.....	150	None	.....
Dakota	Devil's Lake	*29	48	250	38	Same
	Fort Berthold	*20	.....	250	105	100 per cent. increase
	Red Cloud	†2	1	1,200	No school	.....
	Sisseton	120	835	300	120	10 per cent. increase
	Standing Rock	10	10	400	60	40 per cent. increase
	Yankton	†400	.....	500	225	34 more
	.....	§ 45	.....	.....	.....	.....
Idaho	Fort Hall .....	.....	.....	200	No school	.....
	Lemhi .....	.....	.....	23	do	.....
	Nez Percé	35	50	180	48	Same
Indian Territory ...	Cheyenne and Arapaho	94	20	700	140	Same
	Kiowa and Comanche.	25	10	521	75	do
	Pawnee	85	35	400	120	5 per cent. increase
	Sac and Fox	46	118	250	85	Same
	Wichita	50	20	200	117	Attendance more regular.
Iowa	Sac and Fox	40	20	65	.....	.....
Kansas	Pottawatomie	44	154	120	57	.....
Michigan	Mackinac	100	300	1,500	200	Slight increase
Minnesota	Leech Lake	16	39	429	33	33 per cent. increase
	Red Lake	15	5	475	43	43 per cent. increase
Montana	White Earth	100	250	470	99	.....
	Blackfeet	4	.....	800	87	33 per cent. increase
	Crow	12	.....	1,200	100	33 per cent. increase
	Flathead	55	30	300	35	10 per cent. increase
	Fort Peck	10	.....	.....	60	.....
Nebraska	Great Nemaha	55	76	62	58	25 per cent. increase
	Omaha	32	45	200	110	43 per cent. increase
	Santee	50	150	126	126	Same
Nevada	Winnebago	75	100	572	110	40 per cent. increase
	Nevada (Pyramid Lake)	|| 20	.....	77	23	.....
	Western Shoshone .....	.....	.....	600	.....	.....
New Mexico	Abiquiu .....	.....	.....	.....	.....	.....
	Navajo .....	.....	.....	4,000	.....	.....
New York	New York	800	963	1,425	1,162	Same
Oregon	Malheur	5	3	244	57	.857 decrease
	Siletz	100	55	230	110	Slight increase
	Umatilla	20	8	90	28	Same
	Warm Springs	16	10	90	50	do
Utah	Uintah Valley .....	|| 7	.....	30	22	.....
Washington	Colville	20	69	379	25	Same
	Neah Bay	18	6	225	34	do
	Puyallup, &c	13	17	200	30	.....
	Quinalt	14	0	60	30	100 per cent. increase
	S'Kokomish	37	|| 8	150	70	100 per cent. increase
Wyoming	Tulalip	50	150	200	54	13 per cent. increase
	Shoshone and Bannock	.....	1	600	41	75 per cent. increase

* Read

† Write.

‡ Read Dakota.

Indian tribes in civilization—Continued.

Proportion of children who can be accommodated in school.	Illiteracy of Indians. Is it due to aversion to education or lack of educational facilities?	Amount (additional to appropriation by Congress) expended last year for school and missionary work, and by whom contributed.
No building.....	Lack of facilities.....	
One-eighth.....	do.....	
One-twenty-first.....	do.....	Clothing for school children by Ladies' Union Missionary Society, N. Y.
No school.....	do.....	
All.....	do.....	\$500, Methodist Episcopal Church.
No school.....	Principally to lack of facilities.....	
One-sixth.....	To both.....	\$90 by Catholics.
One-fourth.....	To the former.....	\$1,500 by A. B. C. F. M.
No building.....	Lack of facilities.....	One Missionary paid by Episcopal Church, amount unknown.
120.....	do.....	\$300, A. B. C. F. M.
15 per cent.....	Principally the latter.....	
Three-fifths.....	.....	{ \$3,018, Episcopal Church; \$2,425, Presbyterians.
No school.....	Lack of facilities.....	
23.....	do.....	
27 per cent.....	Aversion to use facilities.....	\$775 by Presbyterian Board Foreign Missions.
20 per cent.....	Lack of facilities.....	\$125 by New York and Philadelphia Friends.
do.....	In part to both.....	\$84 by Society of Friends.
25 per cent.....	Lack of facilities.....	\$350 by Society of Friends.
One-third.....	In part to both.....	\$100 by Orthodox Friends.
One-half.....	Lack of facilities.....	\$1,200 by Baptists; \$400 by Friends.
67 per cent.....	Refusal to avail themselves of facilities.....	
75 per cent.....	Partly to both in the past.....	\$100 by Orthodox Friends.
One-fifth.....	Partly to both.....	\$2,800 by Indian Bureau for schools; \$1,000 for Protestant missions, and about \$1,000 for Roman Catholic missions.
One-eighth.....	Both.....	\$136 by Congregationalists, Baptists, and agency employes.
One-eleventh.....	Lack of facilities.....	\$380 and cows and garden-seeds by Episcopal Mission.
One-third.....	do.....	\$5,632 by Episcopal Church.
10 per cent.....	do.....	
One-twenty-fourth.....	do.....	
One-sixth.....	do.....	
Not one-tenth.....	do.....	
All.....	Iowas not illiterate; Sacs and Foxes have lacked facilities in the past.	
Eleven-twentieths.....	Lack of facilities.....	
All.....	.....	\$7,225, Congregationalists and Episcopal Church.
Two-fifths.....	Partly to both.....	\$130, Society of Friends.
All.....	Lack of facilities.....	
No building.....	do.....	
.....	do.....	
Not 100.....	Partly to both.....	
All.....	.....	\$22,000 by State of New York and religious societies—not through agency office.
One-half.....	To both.....	
One-third.....	Lack of facilities.....	
Five-ninths.....	do.....	
Five-ninths.....	do.....	
All.....	do.....	
One-sixth.....	do.....	
Four-ninths.....	Aversion to education.....	
One-fourth.....	Lack of facilities.....	\$100 by Presbyterians.
One-half.....	Aversion to education.....	
One-half.....	Lack of facilities.....	\$400 by American Missionary Association, and \$250 by employes.
One-third.....	Aversion to education.....	
One-twentieth.....	Lack of facilities.....	

§ Read Dakota and English.

|| Read; none write.

Table showing status and progress of

State or Territory.	Name of agency.	Do Indian children differ from whites or blacks of similar social status and surroundings in aptitude for education?	Is there any insuperable obstacle to eventual civilization of Indians through the education of their children?
Arizona.....	Colorado River	No.....	None.....
	Moquis Pueblo	No.....	do
	Pima	Do not learn as rapidly.....	do
	San Carlos	No experience	do
California.....	Round Valley.....	No.....	do
Colorado.....	Los Pinos.....	No.....	do
Dakota	Devil's Lake.....	No; if anything they are more apt.....	do
	Fort Berthold.....	No.....	do
Idaho.....	Red Cloud	Aptness more than ordinary.....	do
	Sisseton	Equally apt.....	do
	Standing Rock.....	do	do
	Yankton	Not materially.....	do
	Fort Hall	No.....	do
	Lemhi	No experience	do
Idaho.....	Nez Percé	No.....	do
Indian Territory.....	Cheyenne and Arapaho.....	Equally apt.....	do
	Kiowa and Comanche.....	No.....	do
	Pawnee	No.....	do
	Sac and Fox	No.....	do
	Wichita	No.....	do
Iowa.....	Sac and Fox	No.....	do
Kansas	Pottawatomie.....	No.....	do
Michigan	Mackinac	No.....	do
Minnesota.....	Leech Lake.....	No.....	do
	Red Lake	No.....	do
Montana.....	White Earth.....	No.....	do
	Blackfeet	Equally, if not more apt	do
	Crow	No.....	do
	Flathead	No.....	do
	Fort Peck	No.....	do
Nebraska	Great Nemaha.....	No.....	do
	Omaha.....	Not materially.....	do
	Santee	No.....	do
	Winnebago	No.....	do
Nevada.....	Nevada	No.....	do
Nevada.....	Western Shoshone.....	No.....	do
	Abiquiu	No.....	do
New Mexico.....	Navajo	No.....	do
New York	New York	No.....	do
Oregon	Malheur	No.....	do
	Siletz	No.....	do
	Umatilla	No.....	do
	Warm Springs.....	No.....	do
Utah	Uintah Valley	No.....	do
Washington	Colville	No.....	do
	Neah Bay.....	Much more apt	do
	Puyallup, &c.....	Not so apt	do
	Quinalt	No.....	do
Washington	S'Kokomish.....	No.....	do
	Tulalip	No.....	do
Wyoming.....	Shoshone and Bannock.....	No	do

Indian tribes in civilization—Continued.

Are schools and missionary work the shortest roads to Indian civilization?	Percentage of Indian subsistence supplied by—		Are school children more ready to engage in farming, herding, &c., than others?	With a sufficient No. of schools, instructors in farming, agricultural implements, domestic animals, &c., will Indians reach self-support in a few years?	Instructors in farming.		
	Indians.	Gov't.			Number of.	Amount paid.	No. who could be profitably employed.
Yes.....	100	.....	Yes.....	Yes.....	1	\$900	3
Yes.....	95	5	Yes.....	Yes.....	.....	.....	1
Yes.....	100	.....	Yes.....	Have always been self-supporting.	(*)	.....	(*)
Yes.....	20	80	Experiment never been tried.	Yes.....	2	2,000	3
Yes.....	50	50	Yes.....	Yes.....	2	1,560	6
Yes.....	50	50	Yes.....	Yes.....	1	720	5
Yes.....	60	40	Yes.....	Yes.....	2	1,380	4
Yes; with the addition of good houses and small farms.	75	25	Yes.....	Yes.....	1	800	1
Yes.....	.....	100	Yes.....	Yes.....	.....	.....	5
Yes.....	75	25	Yes.....	Yes.....	1	700	3
Yes.....	10	90	Yes.....	Yes.....	1	800	4
Yes.....	25	75	Yes.....	Yes.....	1	900	2
Yes; combined with habits of industry.	50	50	Not in my experience.	Yes.....	2	1,520	4
Yes.....	40	60	No experience with school children.	Yes.....	2	1,620	4
Yes; with habits of industry.	100	.....	Yes.....	Already self-supporting.	3	2,390	3
Yes.....	50	50	Yes.....	Yes.....	2	1,720	10
Yes.....	18	82	Yes.....	Yes.....	2	1,260	.....
Yes.....	25	75	Yes.....	Yes.....	2	1,100	4
Yes.....	50	50	Yes.....	Yes.....	3	.....	6
Yes.....	50	50	Yes.....	Yes.....	1	720	10
Yes.....	75	25	Yes.....	Yes.....	1	600	1
Yes.....	.....	.....	.....	Yes.....	3	1,140	3
Yes.....	100	.....	Yes.....	Yes.....	.....	.....	.....
Yes.....	.....	.....	Yes.....	Yes.....	1	.....	2
Yes.....	100	.....	Yes.....	Yes.....	1	.....	5
Yes.....	60	40	Yes.....	Yes.....	.....	.....	3
Yes.....	75	25	Yes.....	Yes.....	1	900	6
Yes.....	50	50	Yes.....	Yes.....	1	840	1 to 10
Yes.....	97	3	Yes.....	Yes.....	2	1,500	2
Yes; with other civilizing influences.	10	90	Yes.....	Yes.....	2	.....	(†)
Yes.....	50	50	Yes.....	Yes.....	1	600	2
Yes.....	100	.....	Yes.....	Yes.....	2	945	2
Yes.....	75	25	Yes.....	Yes.....	1	720	1
Yes.....	100	.....	Yes.....	Already self-supporting.	.....	.....	.....
Yes.....	90	10	No experience.....	Yes.....	4	3,600	4
Yes.....	87½	12½	 do.....	Yes.....	1	1,200	4
Yes.....	25	75	No experience.....	Yes.....	.....	.....	.....
Yes.....	95	5	All are so engaged ..	Virtually self-supporting.	1	700	.....
Yes.....	100	0	Yes.....	Already self-supporting.	(*)	.....	(*)
Yes.....	75	25	Yes.....	Yes.....	2	1,000	6
Yes.....	80	20	Yes.....	Yes.....	1	720	6
Yes.....	95	5	Yes.....	Yes.....	2	1,600	4
Yes.....	100	.....	Yes.....	Many already self-supporting.	1	800	2
Yes.....	66½	33½	Yes.....	Yes.....	2	1,400	2
Yes.....	100	.....	Yes.....	Yes.....	1	900	3
Yes.....	100	.....	Yes.....	Yes.....	1	720	3
Yes.....	98	2	Yes.....	Already self-supporting.	.....	.....	3
Yes.....	100	.....	.....	Almost entirely so now.	1	720	.....
Yes.....	84	16	Yes.....	Yes, very soon.....	1	720	1
Yes.....	100	0	Yes.....	With long and patient instruction.	2	1,260	10
Yes.....	33½	66½	Yes.....	Yes.....	1	700	5

* None needed.

† Several.

Table showing status and progress of

Name and location of agency.	Effect upon Indians of present system of issuing rations.	Should it be continued or discontinued? If the latter, how soon?
Colorado River, Ariz.....	None issued .....	.....
Moquis Pueblo, Ariz.....	Very few issued; no bad effect.	.....
Pima, Ariz	None issued .....	.....
San Carlos, Ariz.....	Very good	Should be continued or Indians will starve.....
Round Valley, Cal.....	As now issued in payment for labor, very good.	Should be continued
Los Pinos, Colo.....	Bad	Should be discontinued as soon as they can be taught agriculture, &c.
Devil's Lake, Dak.....	Better than the old way	Should gradually be discontinued as Indians are taught self-support.
Fort Berthold, Dak.....	do	do
Red Cloud, Dak	Retards self-support ..	Continued until they become self-supporting.....
Sisseton, Dak	Urges them toward self-support.	Discontinued, in two years.....
Standing Rock, Dak.....	Bad	Continued until they become self-supporting.....
Yankton, Dak.....	Effect of gratuitous issue bad.	Gradually discontinued
Fort Hall, Idaho.....	Bad	Gradually discontinued
Lemhi, Idaho	None issued.....	.....
Nez Percé, Idaho.....	.....	.....
Cheyenne and Arapaho, Ind. T.	.....	Until all treaty stipulations are fulfilled
Kiowa and Comanche, I. T.	Bad	Continued until they are taught self-support
Pawnee, Ind. T	A necessary evil	do
Sac and Fox, Ind. T	Very few issued	do
Wichita, Ind. T	Bad	Discontinued as soon as they become self-supporting.....
Sac and Fox, Iowa	None issued .....	.....
Pottawatomie, Kans	None issued .....	.....
Mackinac, Mich	None issued .....	.....
Leech Lake, Minn.....	Very few issued .....	.....
Red Lake, Minn.....	None issued .....	.....
White Earth, Minn.....	do .....	.....
Blackfeet, Mont.....	Very good	Continued until they are taught self-support.....
Crow, Mont	do	do
Flathead, Mont	None issued .....	.....
Fort Peck, Mont.....	Bad	Continued only until they are taught self-support.....
Great Nemaha, Nebr	None issued .....	.....
Omaha, Nebr.....	do .....	.....
Santee, Nebr .....	.....	Discontinued when other provision is made for sick and aged.
Winnebago, Nebr	None issued .....	.....
Nevada, Nev	No bad effect.....	.....
Western Shoshone, Nev..	Very few issued	Should be issued to all as a reward for loyalty to government during recent Indian troubles.
Abiquin, N. Mex.....	.....	Continued until they become self-supporting.....
Navajo, N. Mex.....	Very few issued	Discontinued gradually.....
New York, N. Y.....	None issued .....	.....
Malheur, Oreg.....	Good	Continued until they become self-supporting.....
Siletz, Oreg	None issued except to working-men and those who are helpless.	.....
Umatilla, Oreg	None issued .....	.....
Warm Springs, Oreg.....	do .....	.....
Uintah Valley, Utah	None issued	Discontinued when they become self-supporting.....
Colville, Wash	Only issued as equivalent for work performed.	.....
Neah Bay, Wash.....	.....	.....
Pnyallup, &c., Wash .....	.....	.....
Quinalt, Wash.....	None issued .....	.....
S'Kokomish, Wash.....	None issued except to sick and infirm.	.....
Tulalip, Wash.....	None issued .....	.....
Shoshone and Bannock, Wyo.	Good	Continued until they become self-supporting.....

Indian tribes in civilization—Continued.

Proportion of adult male Indians supplied with agricultural implements.	Per cent. of increase or decrease in crops raised as compared with last year.	
	By Indians.	By white employés.
All with hoes, shovels, and axes	$\frac{1}{2}$ per cent. decrease from lack of seeds and water.	Average.
All with hoes and spades	Increase would have been great but for floods.	None raised.
Government has supplied them with very few.	Small crops on account of lack of water.	
One-fifth with shovels	50 per cent. increase	None raised.
None	10 per cent. decrease (from storms).	
1 (to Ouray only)	150 per cent. increase	200 per cent.
About one-half	25 per cent. increase	Same as last year.
Nearly all	100 per cent. increase	75 per cent. decrease.
.....	No crops raised	
About one-half	50 per cent. increase	
.....	40 per cent. increase	
Not one-half	10 per cent. increase	10 per cent. increase.
One-twelfth with wagons and harness; one-sixth with other implements.	115 per cent. increase	12 $\frac{1}{2}$ per cent. decrease.
None	About same	About same.
Nearly all	Only small increase on account of drought.	Small increase on account of drought.
5 per cent	50 per cent.	None raised.
One-eighth	300 per cent. increase	Do.
One-fourth	60 per cent. increase	Same.
Very few	25 per cent. more than last year	Do.
50 per cent	Large increase	
One-fourth	About the same	
75 per cent	15 per cent. increase	Same.
One-third	10 per cent. increase	None raised.
.....	Large increase	
Three-fourths	33 per cent. increase	Same.
Nearly all	800 per cent. increase	
.....	75 per cent. increase by joint labor of employés and Indians.	
.....	First crops raised	Large increase.
Three	30 per cent. increase	
.....	Gratifying success considering their very limited facilities.	
Four-fifths	25 per cent. increase	50 per cent. increase.
.....	do	
One-half	do	
Nearly all	40 per cent. increase	
.....	20 per cent. increase	
Very few	First attempt this year	No white employés.
.....		
One-half (hoes and axes)	10 per cent. increase	
.....	10 per cent. increase	None raised.
.....	Large crop planted, but destroyed by the military.	
One-fourth	50 per cent. increase	None raised.
Nearly all	Larger area planted than ever before; destroyed during incursion of hostiles.	
Four-fifths	40 per cent. increase	100 per cent. increase.
Very few	200 per cent. increase	
Twenty-five	100 per cent. increase	
.....	do	30 per cent. increase.
.....	(On Puyallup Reservation 20 per cent. increase.	
.....	(On other four reservations 10 per cent. decrease.	
.....	300 per cent. increase	200 per cent. increase.
Five-sixths	About 10 per cent. increase ..	
One-fourth	Slight increase	Slight increase.
One-twentieth	50 per cent. increase	None raised.

Table showing status and progress of

State or Territory.	Name of agency.	Number of Indians brought under religious influence.
Arizona	Colorado River	None
	Moquis Pueblo	do
	Pima	1,000
California	San Carlos	All
	Round Valley	All
Colorado	Los Pinos	None
Dakota	Devil's Lake	250
	Fort Berthold	Few
	Red Cloud	None
	Sisseton	All
	Standing Rock	No estimate
	Yankton	425
Idaho	Fort Hall	
	Lemhi	
	Nez Percé	All
Indian Territory	Cheyenne and Arapaho	All
	Kiowa and Comanche	
	Pawnee	150
	Sac and Fox	800
	Wichita	All
Iowa	Sac and Fox	
Kansas	Pottawatomie	All
Michigan	Mackinac	3-fourths
Minnesota	Leech Lake	200
	Red Lake	200
	White Earth	All
Montana	Blackfeet	Very few
	Crow	
	Flathead	All
	Fort Peck	
Nebraska	Great Nemaha	All
	Omaha	
	Santee	All
	Winnebago	do
Nevada	Nevada	
	Western Shoshone	
New Mexico	Abiquiu	
	Navajo	
New York	New York	All
Oregon	Malheur	150
	Siletz	200
	Umatilla	250
	Warm Springs	350
Utah	Uintah Valley	
Washington	Colville	3,013
	Neah Bay	
	Pnyallup, &c	600
	Quinalt	
	S'Kokomish	500
	Tulalip	Nearly all
Wyoming	Shoshone and Bannock	

Indian tribes in civilization—Continued.

Proportion of adult male Indians—		Causes to which uneasiness is attributed.
Inclined to be turbulent or discontented.	Number who are so at present time.	
None	None	Lack of food.
Six	Six	Visit of General Crook's command to Oraibe village.
None hostile; about one-half discontented.	.....	Scarcity of water, and encroachments of white settlers.
None turbulent; two-thirds discontented.	Very few	Insufficiency of supplies.
None turbulent	Some discontented	Failure of government to fulfill its promises as to land, agricultural implements, and clothing.
None	None	On account of squatters on their land.
10 per cent.	10 per cent.	Desire for a roving life.
Nearly all, until lately .....	.....	Unsettled state in which they have been kept by the government.
None	None	Conflict of authority.
One-tenth	One-tenth	Natural perversity and failure of government to furnish them with food.
One hundred and seventy-five	One hundred and seventy-five	Desire to change their locality.
20 per cent.	None at the agency	Unwillingness to give up old roving life.
Ten	Ten	No dissatisfaction exists, except at smallness of the ration.
One-eighth	One-eighth	Small rations, and the murder of two Comanches by military on 28th June.
Very few .....	.....	Want of farming implements and cattle.
.....	Many dissatisfied	Failure of government to recognize their title to their land; question of transfer to War Department, &c.
.....		
.....		
.....	.....	Some uneasiness on account of loss of "cash annuity."
.....	One-tenth discontented	Want of means to carry on farming.
.....	.....	Some fear of encroachments by whites.
25 per cent. discontented .....	.....	Intrusion and interference of white settlers.
Many dissatisfied .....	.....	Insecurity of land titles.
Many dissatisfied .....	.....	Failure of the government to fulfill treaty obligations.
All discontented .....	.....	Want of permanent home.
All	All	The present irregular war.
One	One	Defeat in re-election to head chieftainship.
.....		
.....	.....	Some uneasiness relative to uncertainty in regard to their land, and of the policy of the government toward them.
.....	One-half uneasy	Fear of removal, anxiety about claims on reserves, &c.
5 per cent.	5 per cent.	Fear of removal to another reservation.
.....	Many discontented	On account of shortness of supplies.

INDIAN LEGISLATION BY THE FIRST AND SECOND SESSIONS OF THE
FORTY-FIFTH CONGRESS.

CHAP. 59.—AN ACT to amend an act entitled "An act to provide for the sale of certain New York Indian lands in Kansas," approved February nineteenth, eighteen hundred and seventy-three. [April 17, 1878.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the period within which the thirty-two Indians referred to in the act to which this is an amendment, or their heirs, are required to prove their identity in order to entitle them to the benefits of said act, be, and the same is hereby, extended for two years from the nineteenth day of February, eighteen hundred and seventy-eight.

CHAP. 87.—AN ACT authorizing the President of the United States to make certain negotiations with the Ute Indians in the State of Colorado. [May 3, 1878.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President of the United States be, and he is hereby, authorized and empowered to enter into negotiations with the Ute Indians, in the State of Colorado, for the consolidation of all the bands into one agency, to be located on the White River, or near said river, and for the extinguishment of their right to the southern portion of their reservation in said State, and to report his proceedings under this act to Congress for its consideration and approval; the expense of such negotiations to be paid by the United States, and to be hereafter appropriated.

CHAP. 142.—AN ACT making appropriations for the current and contingent expenses of the Indian Department, and for fulfilling treaty stipulations with various Indian tribes for the year ending June thirtieth, eighteen hundred and seventy-nine, and for other purposes. [May 27, 1878.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following sums be, and they are hereby, appropriated, out of any money in the Treasury not otherwise appropriated, for the purpose of paying the current and contingent expenses of the Indian Department, and fulfilling treaty stipulations with the various Indian tribes, namely:

Collecting and subsisting Apaches and other Indians of Arizona and New Mexico: For this amount, to subsist and properly care for the Apache and other Indians in Arizona and New Mexico who have been or may be collected on reservations in New Mexico or Arizona, three hundred thousand dollars: *Provided*, That five thousand dollars of the above sum, or so much thereof as may be necessary, may be used to pay the expenses of removing the bands of Utes and Apaches now located near Abiquiu and Cimarron, New Mexico, to their respective reservations; the Utes to the reservation of that tribe in Colorado, and the Apaches to the reservation at Fort Stanton, in New Mexico.

That the sum of two thousand dollars be, and the same is hereby, appropriated for the benefit of the Tonkawa Indians, now at the military post of Fort Griffin, Texas; that the money herein appropriated shall be expended for the benefit of said Indians by the commanding officer at Fort Griffin, under such directions as may be prescribed by the Commissioner of Indian Affairs: *Provided*, That no part of such fund shall be applied to the removal of said Indians from the vicinity of such military post to any Indian reservation: *And provided further*, That such appropriation shall be applied pro rata to such Lipan Indians as may have heretofore been incorporated into the Tonkawa tribe, and which still reside with such tribe.

Pay of Indian police: For the services of not exceeding four hundred and thirty privates at five dollars per month each, and not exceeding fifty officers at eight dollars per month each, of Indian police, to be employed in maintaining order and prohibiting illegal traffic in liquor on the several Indian reservations, thirty thousand dollars: *Provided*, That Indians employed at agencies in any capacity shall not be construed as part of agency employes named in section five of the act making appropriations for the Indian service for the fiscal year eighteen hundred and seventy-six, approved March third, eighteen hundred and seventy-five.

SEC. 3. That the several appropriations herein made for millers, blacksmiths, engineers, carpenters, physicians, and other persons, and for various articles provided for by treaty stipulation for the several Indian tribes, may be diverted to other uses for the benefit of the said tribes respectively, within the discretion of the President, and with the consent of said tribes, expressed in the usual manner: and that he cause report to be made to Congress, at its next session thereafter, of his action under this provision.

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SEC. 4. No purchase of supplies for which appropriations are herein made exceeding in the aggregate five hundred dollars in value at any one time shall be made without advertisement, except in case of exigency, when purchases may be made in open market in amount not exceeding three thousand dollars.

SEC. 5. That when not required for the purpose for which appropriated, the funds herein provided for the pay of specified employees at any agency may be used by the Secretary of the Interior for the pay of clerks or other employees at such agency, but no deficiency shall be thereby created; and when necessary, specified employees may be detailed for clerical or other service when not required for the duty for which they were engaged.

SEC. 6. That so much of the appropriations herein made as may be required to pay for goods and supplies, and for transportation of the same, for the year ending June thirtieth, eighteen hundred and seventy-nine, shall be immediately available; but no such goods or supplies shall be distributed or delivered to any of said Indians prior to July first, eighteen hundred and seventy-eight.

CHAP. 263.—AN ACT making appropriations for the support of the Army for the fiscal year ending June thirtieth, eighteen hundred and seventy-nine, and for other purposes. [June 18, 1878.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following sums be, and the same are hereby, appropriated, out of any money in the Treasury not otherwise appropriated, for the support of the Army, for the year ending June thirtieth, eighteen hundred and seventy-nine, as follows:

* * * * *

SEC. 14. That three Senators to be appointed by the President of the Senate, and five Representatives, to be appointed by the Speaker of the House, are hereby constituted a joint committee who shall take into consideration the expediency of transferring the Indian Bureau to the War Department. Said committee shall be authorized to send for persons and papers, to employ a clerk and stenographer and to sit during the recess of Congress. It shall be the duty of said committee to make final report to Congress on or before the first day of January, eighteen hundred and seventy-nine. And the sum of five thousand dollars, or so much thereof as may be necessary is hereby appropriated out of any money in the Treasury not otherwise appropriated, to defray the expenses of said committee, to be expended under the direction of the chairman thereof.

CHAP. 266.—AN ACT for the restoration to market of certain lands in the Territory of Utah. [June 18, 1878.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That so much of the act of Congress approved May fifth, eighteen hundred and sixty-four, and entitled "An act to vacate and sell the present Indian reservation in Utah Territory, and to settle Indians of said Territory in the Uinta Valley," as directs the Secretary of the Interior to cause to be appraised and offer for sale upon sealed bids the reservations therein referred to, be, and the same is hereby, repealed; and the Secretary of the Interior is hereby authorized and directed to restore the same to the public domain for disposition as other public lands.

CHAP. 359.—AN ACT making appropriations for sundry civil expenses of the government for the fiscal year ending June thirtieth, eighteen hundred and seventy-nine, and for other purposes. [June 20, 1878.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following sums be, and the same are hereby, appropriated for the objects hereinafter expressed for the fiscal year ending June thirtieth, eighteen hundred and seventy-nine, namely:

UNDER THE DEPARTMENT OF THE INTERIOR.

INDIAN AFFAIRS.

* * * * *

That the Secretary of the Interior be, and is hereby, authorized to appoint a commission consisting of three persons to visit the Red Cloud and Spotted Tail Indians, to confer with them about their permanent location, with a view to their final settlement

where they can earn their support by agriculture and stock-raising; and that the sum of five thousand dollars be set apart out of funds already appropriated by the act approved May twenty-seventh, eighteen hundred and seventy eight, for defraying the expenses of said commission; and further that the Secretary of the Interior is hereby authorized to use so much of the sum therein set apart for their removal and settlement as may be necessary to secure their consent to accept such locations as the said commission may approve: *Provided*, The sum so expended shall not exceed forty thousand dollars.

For this amount, or so much thereof as may be necessary, to be expended under the direction of the Secretary of the Interior in defraying the expenses of a commission to negotiate with the Ute Indians in Colorado, with the view of their removal to such location in the northern part of the State of Colorado as may be determined upon, and for the relinquishment of such part of their present reservation as may be agreed upon, six thousand dollars.

That the sum of five thousand dollars, or so much thereof as may be necessary, is hereby appropriated to pay the expenses of the removal of the band of Ute Indians at Cimarron, New Mexico, to the reservation of that tribe in Colorado; and also to remove the band of Apaches at the same place to the Mescalero Apache reservation at Fort Stanton, New Mexico; and the President shall cause the removal of said Indians within thirty days after the passage of this act; and thereafter no rations or annuities shall be issued to said Indians except at the agencies of their respective reservations.

To enable the Secretary of the Interior to remove the Ute Indians from the present reservation on the White River, Colorado, to a more suitable location, where agriculture can be pursued, and the erection of suitable buildings for such new location, ten thousand dollars.

* * * * *

CHAP. 63.—AN ACT to authorize the issue of a patent of certain lands in the Brothertown reservation, in the State of Wisconsin, to the persons selected by the Brothertown Indians. [April 20, 1878.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Commissioner of the General Land Office be, and he is hereby, authorized to give full title to the Brothertown Indians of all the township of land, containing twenty-three thousand and forty acres of land, lying on the east side of Winnebago Lake, in the State of Wisconsin, which, by the provision of a treaty made with the Menomonee Indians, on the seventeenth day of February, eighteen hundred and thirty-one, and ratified on the ninth day of July, eighteen hundred and thirty-two, was reserved for the use of the Brothertown Indians, and which, by a subsequent treaty with the Menomonees, bearing date October twenty-seventh, eighteen hundred and thirty-two, and ratified the thirteenth day of March, eighteen hundred and thirty-three, was further secured to the Brothertown Indians, the right to have the same partitioned, divided and held by them separately and severally in fee-simple.

SEC. 2. That for such purpose, the Commissioner of the General Land Office is hereby fully directed, empowered, and authorized to make and issue a patent of all the lands contained in said township which are now unpatented to Laton Dick, senior, Lucius S. Fowler, David Fowler, and Orrin G. Johnson, residents of Brothertown, Calumet County, and State of Wisconsin, and members of the Brothertown tribe, in trust for the Brothertown Indians: *Provided, however*, That said lands, or any part thereof, shall be sold by said trustees whenever a majority of said Brothertown tribe shall petition for the same; such sale to be made at public auction and to the highest and best bidder in cash therefor, after first giving sixty days' notice of such sale by advertisement in some newspaper published in Calumet County, State of Wisconsin; such advertisement to state the time and place of sale, the terms of sale, and a description of the land to be sold. And the said trustees shall distribute and pay over the proceeds arising from such sale or sales to the Brothertown Indians, according to the former usages, customs, and regulations of said tribe.

CHAP. 139.—AN ACT to authorize the survey of the Cattaraugus Indian reservation in the State of New York. [May 25, 1878.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Interior is hereby authorized to cause the Cattaraugus Indian reservation in the State of New York to be resurveyed in accordance with the original survey thereof, and the exterior boundaries thereof to be marked by stone or iron monuments; the expense thereof not to exceed the sum of two

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thousand dollars, and to be paid by the Seneca Nation of Indians, who are authorized to select a surveyor, to be approved by the Secretary of the Interior, and the said Secretary may pay the said sum of two thousand dollars, to the person who makes the survey out of any moneys under his control belonging to said nation of Indians.

SEC. 2. That the surveyor shall make plats in triplicate of the said reservation, showing the lines of its exterior boundaries, streams of water, and public highways on or running through the reservation; and that the plats and field-notes of the survey shall be submitted to the Commissioner of the General Land Office for his examination and approval, and whose duty it shall be to furnish one copy thereof to the clerk of the county of Erie, in the State of New York, one copy to the Seneca Nation of Indians, and the third to be retained in the General Land Office.

CHAP. 200.—AN ACT to legalize certain patents issued to members of the Pottawatomie tribe of Indians. [June 14, 1878.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the patents issued April fifteenth, eighteen hundred and seventy-one, to certain Pottawatomie Indians in the State of Kansas, under the third article of the treaty between the United States and the Pottawatomie tribe of Indians, of November fifteenth, eighteen hundred and sixty-one, and the sixth and eighth articles of the treaty between the United States and said tribe of Indians, concluded February twenty-seventh, eighteen hundred and sixty-seven, be, and the same are hereby declared to be, valid and in full force and effect to the same extent as they would have been had said patentees become naturalized citizens of the United States prior to the issuing of said patents: *Provided,* That this act shall only apply to patents for lands for which conveyances have been made in good faith by the patentees subsequent to the issuing of their patents.

Statement showing the present liabilities of the United States to Indian tribes under treaty stipulations.

Names of treaties.	Description of annuities, &c.	Number of installments yet unappropriated, explanations, &c.	Reference to laws, Statutes at Large.	Annual amount necessary to meet stipulations, indefinite as to time, now allowed, but liable to be discontinued.	Aggregate of future appropriations that will be required during a limited number of years to pay limited annuities incidentally necessary to effect the payment.	Amount of annual liabilities of a permanent character.	Amount held in trust by the United States on which 5 per cent. is annually paid, and amounts which, invested at 5 per cent., produce permanent annuities.
Apaches, Kiowas, and Comanches.	Thirty installments, provided to be expended under the tenth article treaty of October 21, 1867.	Nineteen installments, unappropriated, at \$30,000 each.	Vol. 15, p. 584, § 10	.....	\$570,000 00	.....	.....
Do.....	Purchase of clothing.....	Tenth article treaty of October 21, 1867.	do.....	\$15,000 00	.....	.....	.....
Do.....	Pay of carpenter, farmer, blacksmith, miller, and engineer.	Fourteenth article treaty of October 21, 1867.	Vol. 15, p. 585, § 14	5,200 00	.....	.....	.....
Do.....	Pay of physician and teacher.	do.....	do.....	2,500 00	.....	.....	.....
Do.....	Three installments, for seed and agricultural implements.	Two installments of \$2,500 each due.	Vol. 15, p. 583, § 8	.....	5,000 00	.....	.....
Do.....	Pay of a second blacksmith, iron and steel.	do.....	do.....	2,000 00	.....	.....	.....
Arickarees, Gros Ventres, and Mandans.	Amount to be expended in such goods, &c., as the President may from time to time determine.	Eighth article treaty of October 21, 1867.	Vol. 15, p. 584, § 8	60,000 00	.....	.....	.....
Assinaboines.	do.....	Seventh article treaty of July 27, 1866.	Treaty not published.	.....	.....	.....	.....
Blackfeet, Bloods, and Piegiens.	do.....	do.....	do.....	30,000 00	.....	.....	.....
Cheyennes and Arapahoes.	do.....	Eighth article treaty of September 1, 1868.	do.....	40,000 00	.....	.....	.....
Do.....	Thirty installments, provided to be expended under tenth article treaty of October 28, 1867.	Nineteen installments, unappropriated, at \$20,000 each.	Vol. 15, p. 596, § 10	.....	380,000 00	.....	.....
Do.....	Purchase of clothing, same article.	do.....	do.....	14,000 00	.....	.....	.....
Do.....	Pay of physician, carpenter, farmer, blacksmith, miller, engineer, and teacher.	do.....	Vol. 15, p. 597, § 13	7,700 00	.....	.....	.....
Do.....	Three installments, for the purchase of seeds and of agricultural implements.	Two installments, of \$2,500 each, due.	Vol. 15, p. 595, § 8	.....	5,000 00	.....	.....
Do.....	Pay of second blacksmith, iron and steel.	do.....	do.....	2,000 00	.....	.....	.....
Chickasaws.	Permanent annuity in goods.	do.....	Vol. 15, p. 597, § 8	.....	.....	\$3,000 00	.....
Chippewas, Boise Forte band.	Twenty installments, for blacksmith, assistants, iron, tools, &c.	Seven installments, at \$1,500 each, unappropriated.	Vol. 1, p. 619	.....	10,500 00	.....	.....
Do.....	Twenty installments, for schools, instructing Indians in farming, and for the purchase of seeds, tools, &c.	Seven installments, at \$1,600 each, unappropriated.	do.....	.....	11,200 00	.....	.....

Do.	Twenty installments of annuity, in money, goods, or other articles, provisions, ammunition, and tobacco.	Estimated at.	Vol. 10, p. 1112	1,800 00	77,000 00
Chippewas of Lake Superior.	Support of smith and shop, and pay of two farmers, during the pleasure of the President.	Six installments, of \$20,000 each, due.	Vol. 13, p. 694, § 3	120,000 00	
Chippewas of the Mississippi.	Ten installments in money, at \$20,000 each, third article treaty of February 22, 1855, and third article treaty of May 7, 1864.	Twelve installments, of \$1,000 each, due.	Vol. 9, p. 904, § 3	12,000 00	
Do.	Forty-six installments, to be paid to the chiefs of the Mississippi Indians.	Sixteen installments, of \$22,666.66 each, due.	Vol. 10, p. 1168, § 3; vol. 13, p. 694, § 3.	362,666 56	
Chippewas, Pillagers, and Lake Winnebagoish band.	Forty installments: in money, \$10,666.66; goods, \$8,000, and for purposes of utility, \$4,000.	Six installments, of \$3,000 each, due.	Vol. 13, p. 694, § 3	18,000 00	
Do.	Ten installments, for purposes of education, per third article treaty of May 7, 1864.	Second article treaty of November 16, 1805, \$3,000; thirteenth article treaty of October 18, 1820, \$600; second article treaty of January 20, 1825, \$6,000.	Vol. 7, p. 99, § 2; vol. 11, p. 614, § 13; vol. 7, p. 213, § 13; vol. 7, p. 235, § 2.	9,600 00	
Choctaws.	Permanent annuities.	Sixth article treaty of October 18, 1820; ninth article treaty of January 20, 1825.	Vol. 7, p. 212, § 6; vol. 7, p. 236, § 9; vol. 7, p. 614, § 13.	920 00	
Do.	Provisions for smiths, &c.	One installment, of \$2,000, due.	Vol. 11, p. 614, § 13.	19,512 89	\$390,257 92
Do.	Interest on \$390,257.92, articles ten and thirteen, treaty of January 22, 1855.	One installment, of \$5,100, due.	Vol. 12, p. 964, § 2	2,000 00	
Confederated tribes and bands in Middle Oregon.	Five installments, for beneficial purposes, under direction of the President, treaty of June 25, 1855.	One installment, of \$5,100, due.	Vol. 12, p. 964, § 4	5,100 00	
Do.	Twenty installments, for pay and subsistence of one physician, sawyer, miller, superintendent of farming, and school-teacher.	One installment, of \$500, due.	do.	500 00	
Do.	Twenty installments for salary of head chief.	Treaty of August 7, 1790.	Vol. 7, p. 36, § 4	1,500 00	
Creeks.	Permanent annuities.	Treaty of June 16, 1802.	Vol. 7, p. 69, § 2	3,000 00	
Do.	do.	Treaty of January 24, 1826.	Vol. 7, p. 287, § 4	20,000 00	490,000 00
Do.	do.	Treaty of January 24, 1826.	Vol. 7, p. 287, § 8	1,110 00	22,200 00
Do.	Smiths, shops, &c.	Treaty of January 24, 1826, and August 7, 1856.	Vol. 7, p. 287, § 8; vol. 11, p. 700, § 5.	600 00	12,000 00
Do.	Wheelwright, permanent.	Treaty of February 14, 1833, and treaty of August 7, 1856.	Vol. 7, p. 419, § 5; vol. 11, p. 700, § 5.	840 00	
Do.	Allowance during the pleasure of the President for blacksmiths, assistants, shops and tools, iron and steel, wagon-maker, education and assistance in agricultural operations, &c.	Treaty of August 7, 1856.	Vol. 11, p. 700, § 6	270 00	
Do.	Interest on \$200,000 held in trust, sixth article treaty August 7, 1856.	Expended under the direction of Secretary of the Interior.	1,000 00	10,000 00	200,000 00
Do.	Interest on \$675,168 held in trust, third article treaty June 14, 1866, to be expended under the direction of the Secretary of the Interior.		2,000 00	33,758 40	675,168 00

Statement showing the present liabilities of the United States to Indian tribes under treaty stipulations—Continued.

Names of treaties.	Description of annuities, &c.	Number of installments yet unap- propriated, explanations, &c.	Reference to laws, Statutes at Large.	Annual amount necessary to meet stipulations, indefinite as to time, now allowed, but liable to be discontinued.	Aggregate of future appropri- ations that will be required during a limited number of years to pay limited annu- ties incidentally necessary to effect the payment.	Amount of annual liabilities of a permanent character.	Amount held in trust by the United States on which 5 per cent. is annually paid, and amounts which, invest- ed at 5 per cent., produce permanent annuities.
Crows	For supplying male persons over fourteen years of age with a suit of good, substantial woolen clothing; females over twelve years of age a flannel skirt or goods to make the same, a pair of woolen hose, calico and do- mestic; and boys and girls under the ages named such flannel and cotton goods as their necessities may require.	Treaty of May 7, 1868; twenty in- stallments, of \$19,000 each, due, estimated.	Vol. 15, p. 651, § 9	.....	\$380, 000 00	.....	.....
Do.....	For pay of physician, carpenter, miller, en- gineer, farmer, and blacksmith.	Treaty of May 7, 1868.....	do	\$4, 500 00	.....	.....	.....
Do.....	Twenty installments, for pay of teacher and for books and stationery.	Eleven installments, of \$1,500 each, due.	Vol. 15, p. 651, § 7	.....	16, 500 00	.....	.....
Do.....	Blacksmith, iron and steel, and for seeds and agricultural implements.	Estimated at.....	Vol. 15, p. 651, § 8	2, 000 00	.....	.....	.....
Do.....	For the purchase of such beneficial objects as the condition and necessities of the Indians may require.	Estimated, one installment, of \$20,000, due.	Vol. 15, p. 652, § 9	.....	20, 000 00	.....	.....
Dwamish and oth- er allied tribes in Washington Ter- ritory.	Twenty installments, of \$150,000, to be expend- ed under the direction of the President.	One installment, of \$4,250, due.....	Vol. 12, p. 928, § 6.	.....	4, 250 00	.....	.....
Do.....	Twenty installments, for agricultural schools and teachers.	One installment, of \$3,000, due.....	Vol. 12, p. 929, § 14	.....	3, 000 00	.....	.....
Do.....	Twenty installments, for a smith and carpen- ter shop and tools.	One installment, of \$500, due.....	do .....	.....	500 00	.....	.....
Do.....	Twenty installments, for blacksmith, carpen- ter, farmer, and physician.	One installment, of \$4,200, due.....	do .....	.....	4, 200 00	.....	.....
Flatheads and oth- er confederated tribes.	Twenty installments, for agricultural and in- dustrial school, providing necessary furni- ture, books, stationery, &c., and for the em- ployment of suitable instructors.	One installment, of \$2,100, due.....	Vol. 12, p. 977, § 5.	.....	2, 100 00	.....	.....

Do.....	Twenty installments, for two farmers, two millers, blacksmith, gunsmith, tinsmith, carpenter and joiner, and wagon and plow maker, \$7,400, and keeping in repair blacksmith's, carpenter's, wagon and plow maker's shops, \$500.	One installment, of \$7,400, due.....	do.....	7,400 00	.....
Do.....	Twenty installments, for keeping in repair flouring and saw mill, and supplying the necessary fixtures.	One installment, of \$500, due.....	do.....	500 00	.....
Do.....	Twenty installments, for pay of physician \$1,400, keeping in repair hospital and for medicine, \$300.	One installment, of \$1,500, due.....	do.....	1,500 00	.....
Do.....	Twenty installments, for repairing buildings for various employes, &c.	One installment, of \$300, due.....	do.....	300 00	.....
Do.....	Twenty installments, for each of the head chiefs of the Flathead, Kootenay, and Upper Pend d'Oreille tribes, at \$500 each.	One installment, of \$1,500, due.....	do.....	1,500 00	.....
Gros Ventres.....	Amount to be expended in such goods, provisions, &c., as the President may from time to time determine as necessary.	Treaty not published (eighth article, July 13, 1868).	.....	.....	.....
Iowas.....	Interest on \$57,500, being the balance on \$157,500.	.....	Vol. 10, p. 1071, § 9	\$2,875 00	\$57,500 00
Kansas.....	Interest on \$200,000, at 5 per cent.....	.....	Vol. 9, p. 842, § 2	10,000 00	200,000 00
Kikapoos.....	Interest on \$93,581.09, at 5 per cent.....	.....	Vol. 10, p. 1079, § 2	4,679 05	93,581 09
Klamaths and Modocs.....	Five installments of \$3,000, third series, to be expended under the direction of the President.	Two installments due.....	Vol. 16, p. 708, § 2	.....	6,000 00
Do.....	Twenty installments, for repairing saw-mill, and buildings for blacksmith, carpenter, wagon and plow maker, manual-labor school, and hospital.	Eight installments, of \$1,000 each, due.	do.....	8,000 00	.....
Do.....	For tools and materials for saw and flour mills, carpenter's, blacksmith's, wagon and plow maker's shops, books and stationery for manual-labor school.	Seven installments, of \$1,500 each, due.	do.....	10,500 00	.....
Do.....	Pay of superintendent of farming, farmer, blacksmith, sawyer, carpenter, and wagon and plow maker.	Two installments, of \$6,000 each, due.	Vol. 16, p. 709, § 5	12,000 00	.....
Do.....	Pay of physician, miller, and two teachers, for twenty years.	Seven installments, of \$3,600 each, due.	do.....	25,200 00	.....
Makahs.....	Ten installments, being the fifth series, for beneficial objects, under the direction of the President.	One installment, of \$1,000, due.....	Vol. 12, p. 940, § 5	1,000 00	.....
Do.....	Twenty installments, for agricultural and industrial schools and teachers, and for smith, carpenter, farmer, and physician.	One installment, of \$7,600, due.....	Vol. 12, p. 941, § 11	7,600 00	.....
Menomonees.....	Fifteen installments, to pay \$242,686, for cession of land.	Two installments, of \$16,179.06 each, due.	Vol. 10, pp. 1065 and 1067, § 5.	32,358 12	.....
Miamies of Kansas.....	Permanent provision for smith's shops and miller, &c.	Say \$348.20 for shop and \$222.26 for miller.	Vol. 7, p. 191, § 5.	570 46	11,409 34
Do.....	Twenty installments upon \$150,000, third article treaty of June 5, 1854.	One installment, of \$5,094.34, due.....	Vol. 10, p. 1094, § 3	5,094 34	.....

Statement showing the present liabilities of the United States to Indian tribes under treaty stipulations—Continued.

Names of treaties.	Description of annuities, &c.	Number of installments yet unap- propriated, explanations, &c.	Reference to laws, Statutes at Large.	Annual amount necessary to meet stipulations, indefinite as to time, now allowed, but liable to be discontinued.	Aggregate of future appropri- ations that will be required during a limited number of years to pay limited annui- ties incidentally necessary to effect the payment.	Amount of annual liabilities of a permanent character.	Amount held in trust by the United States on which 5 per cent. is annually paid, and amounts which, invested at 5 per cent., produce per- manent annuities.
Miamies of Kansas.	Interest on \$18,521.65, at the rate of 5 per cent., as per third article treaty of June 5, 1854.	.....	Vol. 10, p. 1094, § 3	.....	.....	\$926 08	\$18,521 65
Miamies of Indiana.	Interest on \$221,257.86, at 5 per cent. per annum	June 5, 1854.....	Vol. 10, p. 1099, § 4	.....	.....	11,062 89	221,257 86
Miamies of El River.	Permanent annuities	Fourth article treaty of 1795; third article treaty of 1805; third arti- cle treaty of 1809.	Vol. 7, p. 51, § 4; vol. 7, p. 91, § 3; vol. 7, p. 114, § 3; vol. 7, p. 116.	.....	.....	1,100 00	22,000 00
Molels	Pay of teacher to manual-labor school, and subsistence of pupils, &c.	Treaty of December 21, 1855.....	Vol. 12, p. 982, § 2.	\$3,000 00	.....	.....	.....
Mixed Shoshones, Bannacks, and Sheepeaters.	To be expended in such goods, provisions, &c., as the President may from time to time de- termine as proper.	Treaty of September 24, 1868.....	.....	20,000 00	.....	.....	.....
Navajoes	Ten installments, for the purchase of such articles as from time to time the condition and necessities of the Indians may indicate to be proper.	One installment, of \$30,000, due ..	do .....	.....	\$30,000 00	.....	.....
Do.....	Ten installments, for pay of teachers.....	Two installments, of \$2,000 each, due	Vol. 15, p. 668, § 6	.....	4,000 00	.....	.....
Nez Percés	Five installments, last series, for beneficial objects, at the discretion of the President.	One installment, of \$3,000, due ..	Vol. 12, p. 958, § 4	.....	3,000 00	.....	.....
Do.....	Twenty installments, for two schools, &c., pay of superintendent of teaching and two teachers, superintendent of farming and two farmers, two millers, two blacksmiths, two gunsmiths, tinner, carpenter, wagon and plow maker, keeping in repair saw and grist mills, for necessary tools, pay of phy- sician, repairing hospital, and furnishing medicine, &c., repairing buildings for em- ployés and the shops for blacksmith, tin- smith, gunsmith, carpenter, wagon and plow maker, providing tools therefor, and pay of head chief.	One installment, of \$17,200, due ..	Vol. 12, p. 958, § 5	.....	17,200 00	.....	.....

Do.....	Sixteen installments, for boarding and clothing children who attend school, providing schools, &c., with necessary furniture, purchase of wagons, teams, tools, &c.	Three installments, of \$2,000 each.	Vol. 14, p. 649, § 4	.....	6,000 00	.....
Do.....	Salary of two subordinate chiefs	Treaty of June 9, 1863.....	Vol. 14, p. 650, § 5	1,000 00	.....	.....
Do.....	Fifteen installments, for repairs of houses, mills, shops, &c.	Three installments, of \$1,000 each, due.	Vol. 14, p. 649, § 5	.....	3,000 00	.....
Do.....	Salary of two matrons for schools, two assistant teachers, farmer, carpenter, and two millers.	Treaty of June 9, 1863.....	Vol. 14, p. 650, § 5	3,500 00	.....	.....
Northern Chey- ennes and Arapa- hoes.	Thirty installments, for purchase of clothing, as per sixth article treaty May 10, 1868.	Twenty installments, of \$12,000 each, due.	Vol. 15, p. 657, § 6	.....	240,000 00	.....
Do.....	Ten installments, to be expended by the Secretary of the Interior, for Indians engaged in agriculture.	Ten installments, of \$37,500 each, due.	do.....	.....	375,000 00	.....
Do.....	Pay of teacher, farmer, carpenter, miller, blacksmith, engineer, and physician.	Estimated at.....	Vol. 15, p. 658, § 7	6,000 00	.....	.....
Omahas.....	Fifteen installments, third series, in money or otherwise.	Four installments, of \$20,000 each, due.	Vol. 10, p. 1044, § 4	.....	80,000 00	.....
Do.....	Twelve installments, fourth series, in money or otherwise.	Twelve installments, fourth series (due after expiration of 3d series), of \$10,000 each, due.	Vol. 10, p. 1044, § 4	.....	120,000 00	.....
Osages.....	Interest on \$69,120, at 5 per cent., for educational purposes.	Resolution of the Senate to treaty, January 2, 1825.	Vol. 7, p. 242, § 6	.....	3,456 00	69,120 00
Do.....	Interest on \$300,000, at 5 per cent., to be paid semi-annually, in money or such articles as the Secretary of the Interior may direct.	Treaty of September 29, 1865.....	Vol. 14, p. 687, § 1	.....	15,000 00	300,000 00
Ottos and Missou- rias.	Fifteen installments, third series, in money or otherwise.	Four installments, of \$9,000 each, due.	Vol. 10, p. 1039, § 4	.....	36,000 00	.....
Do.....	Twelve installments, last series, in money or otherwise.	Twelve installments, of \$5,000 each, due.	do.....	.....	60,000 00	.....
Pawnees.....	Annuity goods, and such articles as may be necessary.	Treaty of September 24, 1857.....	Vol. 11, p. 729, § 2	.....	30,000 00	.....
Do.....	Support of two manual-labor schools and pay of teachers.	do.....	Vol. 11, p. 729, § 3	10,000 00	.....	.....
Do.....	For iron and steel and other necessary articles for shops, and pay of two blacksmiths, one of which is to be tin and gun smith, and compensation of two strikers and apprentices.	Estimated, for iron and steel, \$500; two blacksmiths, \$1,200; and two strikers, \$480.	Vol. 11, p. 729, § 4	2,180 00	.....	.....
Do.....	Farming utensils and stock, pay of farmer, miller, and engineer, and compensation of apprentices, to assist in working in the mill, and keeping in repair grist and saw mill.	Estimated.....	Vol. 11, p. 730, § 4	4,400 00	.....	.....
Poncas.....	Fifteen installments, last series, to be paid to them or expended for their benefit.	Ten installments, of \$8,000 each, due.	Vol. 12, p. 997, § 2	.....	80,000 00	.....
Do.....	Amount to be expended during the pleasure of the President for purposes of civilization.	Treaty of March 12, 1868.....	Vol. 12, p. 998, § 2	10,000 00	.....	.....
Pottawatomies.....	Permanent annuity in money.....	August 3, 1795.....	Vol. 7, p. 51, § 4	.....	357 80	7,156 00
Do.....	do.....	September 30, 1809.....	Vol. 7, p. 114, § 3	.....	178 90	3,578 00

Statement showing the present liabilities of the United States to Indian tribes under treaty stipulations—Continued.

Names of treaties.	Description of annuities, &c.	Number of installments yet unap- propriated, explanations, &c.	Reference to laws, Statutes at Large.	Annual amount necessary to meet stipulations, indefinite as to time, now allowed, but liable to be discontinued.	Aggregate of future appropri- ations that will be required during a limited number of years to pay limited annui- ties incidentally necessary to effect the payment.	Amount of annual liabilities of a permanent character.	Amount held in trust by the United States on which 5 per cent. is annually paid, and amounts which, invest- ed at 5 per cent., produce permanent annuities.
Pottawatomies	Permanent annuity in money	October 2, 1818	Vol. 7, p. 185, § 3			\$894 50	\$17,890 00
Do	do	September 20, 1828	Vol. 7, p. 317, § 2			715 60	14,312 00
Do	do	July 29, 1829	Vol. 7, p. 330, § 2			5,724 77	114,495 40
Do	For educational purposes, during the pleasure of the President.	September 20, 1828	Vol. 7, p. 318, § 2	\$5,000 00			
Do	Permanent provision for three blacksmiths and assistants, iron and steel.	October 16, 1826; September 20, 1828; July 29, 1829.	Vol. 7, p. 296, § 3; vol. 7, p. 318, § 2; vol. 7, p. 321, § 2.			1,008 99	20,179 80
Do	Permanent provision for furnishing salt.	July 29, 1829	Vol. 7, p. 320, § 2			156 54	3,130 80
Do	Permanent provision for payment of money in lieu of tobacco, iron and steel.	September 20, 1828; June 5 and 17, 1846.	Vol. 7, p. 318, § 2; vol. 9, p. 855, § 10.			107 34	2,146 80
Do	For interest on \$230,064.20, at 5 per cent.	June 5 and 17, 1846.	Vol. 9, p. 855, § 7			11,503 21	230,064 20
Pottawatomies of Huron.	Permanent annuities	November 17, 1808	Vol. 7, p. 106, § 2			400 00	8,000 00
Quapaws	For education, smith, farmer, and smith-shop during the pleasure of the President.	\$1,000 for education, \$1,060 for smith, &c.	Vol. 7, p. 425, § 3	2,060 00			
Quinaiaelts and Quillehutes.	\$25,000, sixth series, to be expended for bene- ficial objects.	One installment, of \$700, due	Vol. 12, p. 972, § 4		\$700 00		
Do	Twenty installments, for an agricultural and industrial school, employment of suitable instructors, support of smith and carpenter shops and tools, pay of blacksmith, carpen- ter, farmer, and physician.	One installment, of \$5,500, due	Vol. 12, p. 973, § 10		5,500 00		
River Crows	Amount to be expended in such goods, provis- ions, &c., under direction of the President.	July 15, 1868	Vol. 16, p. 349, § 7	30,000 00			
Sacs and Foxes of Mississippi.	Permanent annuity	Treaty of November 3, 1804	Vol. 7, p. 85, § 3			1,000 00	20,000 00
Do	Interest on \$200,000, at 5 per cent.	Treaty of October 21, 1837	Vol. 7, p. 541, § 2			10,000 00	200,000 00
Do	Interest on \$800,000, at 5 per cent.	Treaty of October 21, 1842	Vol. 7, p. 596, § 2			40,000 00	800,000 00
Sacs and Foxes of Missouri.	Interest on \$157,400, at 5 per cent.	Treaty of October 21, 1837	Vol. 7, p. 543, § 2			7,870 00	157,400 00
Seminoles	Interest on \$500,000, eighth article of treaty of August 7, 1856.	\$25,000 annual annuity	Vol. 11, p. 702, § 8			25,000 00	500,000 00

Do.....	Interest on \$70,000 at 5 per cent.....	Support of schools, &c.....	Vol. 14, p. 757, § 3	.....	3,500 00	70,000 00
Senecas.....	Permanent annuity.....	September 9 and 17, 1817.....	Vol. 7, p. 161, § 4; Vol. 7, p. 179, § 4.	.....	1,000 00	20,000 00
Do.....	Smith and smith-shop and miller, permanent annuities.....	February 28, 1831.....	Vol. 7, p. 349, § 4	.....	1,660 00	33,200 00
Senecas of New York.....	Interest on \$10,000, at 5 per cent.....	February 19, 1841.....	Vol. 4, p. 442	.....	6,000 00	120,000 00
Do.....	Interest on \$43,050, transferred from the Ontario Bank to the United States Treasury.....	Act of June 27, 1846.....	Vol. 9, p. 35, § 2	.....	3,750 00	75,000 00
Do.....	Permanent annuity.....	do.....	Vol. 9, p. 35, § 3	.....	2,152 50	43,050 00
Senecas and Shawnees.....	Permanent annuity.....	Treaty of September 17, 1818.....	Vol. 7, p. 179, § 4	.....	1,000 00	20,000 00
Do.....	Support of smiths and smiths' shops.....	Treaty of July 20, 1831.....	Vol. 7, p. 352, § 4	1,060 00	.....	.....
Shawnees.....	Permanent annuity for education.....	August 3, 1795; September 29, 1817.....	Vol. 7, p. 51, § 4	.....	3,000 00	60,000 00
Do.....	Interest on \$40,000, at 5 per cent.....	August 3, 1795; May 10, 1854.....	Vol. 10, p. 1056, § 3.	.....	2,000 00	40,000 00
Shoshones, western band.....	Twenty installments of \$5,000 each, under the direction of the President.....	Five installments to be appropriated.....	Vol. 18, p. 690, § 7.	25,000 00	.....	.....
Shoshones, north-western band.....	do.....	do.....	Vol. 13, p. 663, § 3.	25,000 00	.....	.....
Shoshones, Goship band.....	Twenty installments of \$1,000 each, under direction of the President.....	do.....	Vol. 13, p. 652, § 7.	5,000 00	.....	.....
Shoshones and Bannacks.....	For the purchase of clothing for men, women, and children, thirty installments.....	Twenty-one installments due, estimated at \$11,500 each.....	Vol. 15, p. 676, § 9.	241,500 00	.....	.....
Do.....	For the purchase of such articles as may be considered proper by the Secretary of the Interior.....	Two installments due, estimated.....	do.....	40,000 00	.....	.....
Do.....	For pay of physician, carpenter, teacher, engineer, farmer and blacksmith.....	Estimated.....	Vol. 15, p. 676, § 10	5,000 00	.....	.....
Do.....	Blacksmith, and for iron and steel for shops.....	do.....	Vol. 15, p. 676, § 3.	1,000 00	.....	.....
Bannacks.....	For the purchase of clothing for men, women, and children, thirty installments.....	Twenty-one installments due, estimated at \$6,937.00 each.....	Vol. 15, p. 676, § 9.	145,677 00	.....	.....
Do.....	For the purchase of such articles as may be considered necessary by the Secretary for persons roaming, &c.....	One installment due, estimated.....	do.....	14,000 00	.....	.....
Do.....	Pay of physician, carpenter, miller, teacher, engineer, farmer, and blacksmith.....	Estimated.....	Vol. 15, p. 676, § 10	5,000 00	.....	.....
Six Nations of New York.....	Permanent annuities in clothing, &c.....	Treaty, November 11, 1794.....	Vol. 7, p. 46, § 6	.....	4,500 00	90,000 00
Sioux, Sisseton, and Wahpeton of Lake Traverse and Devil's Lake.....	Amount to be expended in such goods and other articles as the President may from time to time determine, \$300,000, in ten installments, per agreement February 19, 1867.....	Four installments, of \$80,000 each, due.....	Revised Treaties, p. 1051, § 2.	320,000 00	.....	.....
Sioux of different tribes, including Santee Sioux of Nebraska.....	Purchase of clothing for men, women, and children.....	Twenty-one installments, of \$130,000, due; estimated.....	Vol. 15, p. 638, § 10	2,730,000 00	.....	.....
Do.....	Blacksmith, and for iron and steel.....	Estimated.....	do.....	2,000 00	.....	.....
Do.....	For such articles as may be considered necessary by the Secretary of the Interior for persons roaming.....	Twenty-one installments, of \$200,000 each, due; estimated.....	do.....	4,200,000 00	.....	.....
Do.....	Physician, five teachers, carpenter, miller, engineer, farmer and blacksmith.....	Estimated.....	Vol. 15, p. 638, § 13	10,400 00	.....	.....

Statement showing the present liabilities of the United States to Indian tribes under treaty stipulations—Continued.

Name of treaties.	Description of annuities, &c.	Number of installments yet unap- propriated, explanations, &c.	Reference to laws, Statutes at Large.	Annual amount necessary to meet stipulations, indefinite as to time, now allowed, but liable to be discontinued.	Aggregate of future appropri- ations that will be required during a limited number of years to pay limited annu- ties incidentally necessary to effect the payment.	Amount of annual liabilities of a permanent character.	Amount held in trust by the United States on which 5 per cent. is annually paid, and amounts which, invest- ed at 5 per cent., produce permanent annuities.
Sioux of different tribes, including Santee Sioux of Nebraska.	Purchase of rations, &c., as per article 5, agreement of September 26, 1876.	Estimated	Vol. 19, p. 256, § 5	\$1,100,000 00	.....	.....	.....
S'Klallams.....	Twenty installments, last series, on \$60,000 to be expended under the direction of the Sec- retary of the Interior.	One installment, of \$1,600, due	Vol. 12, p. 934, § 5	.....	\$1,600 00	.....	.....
Do.....	Twenty installments, for agricultural and in- dustrial school, pay of teacher, blacksmith, carpenter, physician, and farmer.	One installment, of \$6,100, due	Vol. 12, p. 934, § 11	.....	\$6,100 00	.....	.....
Do.....	Smith, carpenter-shop, and tools.....	Estimated	do	500 00	.....	.....	.....
Tabeguache band of Utes.	Pay of blacksmith	Estimated	Vol. 13, p. 675, § 10	720 00	.....	.....	.....
Tabeguache, Mua- che, Capote, Wee- minuche, Yampa, Grand River, and Uintah bands of Utes.	For iron and steel and necessary tools for blacksmith-shop.	do	Vol. 15, p. 621, § 9	220 00	.....	.....	.....
Do.....	Two carpenters, two millers, two farmers, one blacksmith, and two teachers.	do	Vol. 15, p. 622, § 15	7,800 00	.....	.....	.....
Do.....	Thirty installments of \$30,000 each, to be ex- pended under the direction of the Secretary of the Interior, for clothing, blankets, &c.	Twenty installments, each \$30,000, due.	Vol. 15, p. 622, § 11	.....	600,000 00	.....	.....
Do.....	Annual amount to be expended under the di- rection of the Secretary of the Interior, in supplying said Indians with beef, mutton, wheat, flour, beans, &c.	.....	Vol. 15, p. 622, § 12	30,000 00	.....	.....	.....
Walla Walla, Cay- use, and Chinook.	Five installments, last series, to be expended under the direction of the President.	One installment, of \$2,000, due	Vol. 12, p. 640, § 2	.....	2,000 00	.....	.....

Do.....	Twenty installments, for pay of two millers, farmer, superintendent of farming operations, two teachers, physician, blacksmith, wagon and plow maker, carpenter and joiner.	One installment, of \$9,000, due.....	Vol. 12, p. 947, § 4.	.....	9,000 00	.....	.....
Do.....	Twenty installments, for mill-fixtures, tools, medicines, books, stationery, furniture, &c.	One installment, of \$2,000, due.....	do.....	.....	2,000 00	.....	.....
Do.....	Twenty installments, of \$1,500 each, for pay of head chiefs, three in number, at \$500 each, per annum.	One installment, of \$1,500, due.....	Vol. 12, p. 947, § 5.	.....	1,500 00	.....	.....
Winnebagoes.....	Interest on \$804,909.17, at 5 per cent. per annum.	November 1, 1837, and Senate amendment, July 17, 1862.	Vol. 7, p. 546, § 4; Vol. 12, p. 628, § 4.	.....	\$40,245 45	\$804,900 17	.....
Do.....	Interest on \$78,340.41, at 5 per cent. per annum, to be expended under the direction of the Secretary of the Interior.	July 15, 1870.....	Vol. 16, p. 355, § 1	.....	3,917 02	78,340 41	.....
Walpahpe tribe of Snakes.	Ten installments, second series, under the direction of the President.	Three installments, of \$1,200 each, due.	Vol. 14, p. 684, § 7.	.....	3,600 00	.....	.....
Yankton tribe of Sioux.	Ten installments, of \$25,000 each, being third series, to be paid to them, or expended for their benefit.	Ten installments due.....	Vol. 11, p. 744, § 4	.....	250,000 00	.....	.....
Do.....	Twenty installments, of \$15,000 each, fourth series, to be paid to them, or expended for their benefit.	Twenty installments, of \$15,000 each, due.	do.....	.....	300,000 00	.....	.....
Yakamas.....	Twenty installments, for beneficial objects, under the direction of the President.	One installment, last series, of \$4,000, due.	Vol. 12, p. 953, § 4.	.....	4,000 00	.....	.....
Do.....	Twenty installments, for two schools, one of which is to be an agricultural and industrial school, keeping the same in repair, and providing books, stationery, and furniture.	One installment, of \$500, due.....	Vol. 12, p. 953, § 5.	.....	500 00	.....	.....
Do.....	Twenty installments, for superintendent of teaching, two teachers, superintendent of farming, two farmers, two millers, two blacksmiths, tinner, gunsmith, carpenter, wagon and plow maker.	One installment, of \$14,600, due.....	do.....	.....	14,600 00	.....	.....
Do.....	Twenty installments, for keeping in repair hospital, and furnishing medicine, &c., pay of physician, repair of grist-mill and saw-mill, and furnishing the necessary tools.	One installment, of \$2,000, due.....	do.....	.....	2,000 00	.....	.....
Do.....	Twenty installments, for keeping in repair buildings for employes.	One installment, of \$300, due.....	do.....	.....	300 00	.....	.....
Do.....	Salary of head chief for twenty years.....	One installment, of \$500, due.....	Vol. 12, p. 953, § 5.	.....	500 00	.....	.....
Do.....	Twenty installments, for keeping in repair the blacksmith's, tinsmith's, gunsmith's, carpenter's, and wagon and plow maker's shops, and furnishing tools.	do.....	do.....	.....	500 00	.....	.....
Total.....	.....	.....	.....	1,487,250 00	12,133,246 02	360,313 39	6,335,868 44

TRUST FUNDS AND TRUST LANDS.

The following statements show the transactions in the Indian trust funds and trust lands during the year ending October 31, 1878.

United States 5 per cent. bonds, loan of 1881, amounting to \$781,700, have been purchased for various tribes, as indicated in Statement No. 1. These were purchased with funds derived from the redemption of United States 5 20 6 per cent. bonds, act of March 3, 1865, and from trust-fund interest appropriated for the Chickasaws per act of June 20, 1878.

Statement No. 2 shows the kind of bonds redeemed, the tribes to which they belonged, date of redemption, and amount belonging to each tribe. The funds derived from the redemption of these bonds were reinvested, as shown in Statement No. 1.

Statements A, B, C, D, E, F, G, and H show in detail the various changes in the stocks, funds in the Treasury to the credit of various tribes, collections of coin interest, and the premium realized from the sale thereof, and collections of interest in currency. Following these statements is a consolidation of all interest collected, including premium on coin and the disposition thereof, and a statement of interest appropriated by Congress on non-paying State stocks, for the fiscal year ending June 30, 1878; also a statement showing the interest on non-paying State stocks appropriated by Congress from January 1, 1861, to July 1, 1877, brought on the books of the Indian Office by appropriation warrants. A statement, also, will be found giving in detail the appropriations for the current fiscal year for the several Indian tribes and the Indian service, together with the principal of bonds held in trust for Indian tribes, and of funds placed in the Treasury to their credit, and of interest annually arising from such bonds and funds; also, a statement showing the transactions arising on account of moneys derived from the sales of Indian lands, all being sufficiently in detail to enable a proper understanding of the subject.

No. 1.—Statement of investments in stocks, showing kind, amount, and cost thereof, tribes or funds for which the same were made, and sources whence the funds invested were derived.

Kind of bonds purchased.	Date of purchase.	Amount purchased.	Per cent.	Rate of purchase.	Cost of bonds, including premium and commission.	Fund or tribe.	Amount drawn for investment in coin.	Funds invested derived from—
United States funded loan of 1881.	Sept. 25, 1878	\$91,928 21	5	105½	\$96,984 26	Cherokee national fund.....	\$96,984 26	Redemption of United States five-twenty 6 per cent. bonds, act of March 3, 1865.
Do.....	Sept. 25, 1878	217,063 55	5	105½	a 229,002 05	Cherokee school fund.....	229,013 55	Do.
Do.....	Sept. 25, 1878	142,606 58	5	105½	150,449 94	Cherokee orphan fund.....	150,449 94	Do.
Do.....	Sept. 25, 1878	48 28	5	105½	50 95	Chickasaw national fund.....	50 95	Do.
Do.....	Sept. 25, 1878	4,222 50	5	105½	4,454 74	Chippewa and Christian Indians.....	4,454 74	Do.
Do.....	Sept. 25, 1878	1,629 00	5	105½	1,781 90	Choctaw general fund.....	1,781 90	Do.
Do.....	Sept. 25, 1878	16,045 50	5	105½	16,928 00	Choctaw school fund.....	16,928 00	Do.
Do.....	Sept. 25, 1878	392 57	5	105½	414 16	Creek orphan fund.....	414 16	Do.
Do.....	Sept. 25, 1878	49,845 90	5	105½	52,587 43	Delaware general fund.....	52,587 43	Do.
Do.....	Sept. 25, 1878	4,948 05	5	105½	5,220 19	Iowas.....	5,220 19	Do.
Do.....	Sept. 25, 1878	1,689 60	5	105½	1,781 90	Kansas schools.....	1,781 90	Do.
Do.....	Sept. 25, 1878	91 98	5	105½	97 04	Kaskaskias, Peorias, Weas, and Piankeshaws.	97 04	Do.
Do.....	Sept. 25, 1878	7,600 49	5	105½	8,018 52	Menomonees.....	8,018 52	Do.
Do.....	Sept. 25, 1878	5,911 53	5	105½	6,236 63	Osage schools.....	6,236 63	Do.
Do.....	Sept. 25, 1878	8,445 00	5	105½	8,909 47	Ottawas and Chippewas.....	8,909 47	Do.
Do.....	Sept. 25, 1878	2,666 64	5	105½	2,813 31	Pottawatomies, education.....	2,813 31	Do.
Do.....	Sept. 25, 1878	2,066 44	5	105½	2,180 09	Pottawatomies, mills.....	2,180 09	Do.
Do.....	Sept. 25, 1878	4,834 12	5	105½	5,100 00	Sacs and Foxes of Missouri.....	5,100 00	Do.
Do.....	Sept. 25, 1878	35 23	5	105½	37 17	Senecas.....	37 17	Do.
Do.....	Sept. 25, 1878	2,484 93	5	105½	2,621 60	Senecas and Shawnees.....	2,621 60	Do.
Do.....	Sept. 25, 1878	258 21	5	105½	905 41	Sacs and Foxes of the Mississippi.....	905 41	Do.
Do.....	Sept. 25, 1878	64,147 17	5	105½	67,675 27	Cherokee asylum fund.....	67,675 27	Do.
Do.....	Sept. 25, 1878	11,079 12	5	105½	11,688 47	Eastern Shawnees.....	11,688 47	Do.
United States funded loan of 1881, registered.	July 31, 1878	141,000 00	5	106½	b 149,988 75	Chickasaw national fund.....	*150,000 00	{ Trust-fund interest due Chickasaw national fund prior to July 1, 1866, appropriated by act of June 20, 1878.
Total.....		781,700 00			825,927 25		825,950 00	

Uninvested balances refunded by the Secretary of the Interior: a \$11.50 coin, trust-fund stock redeemed, due Cherokee school fund; b \$11.25, trust-fund interest due Chickasaw national fund prior to July 1, 1866.

* Cu:rency.

No. 2.—Statement showing the redemption of bonds since November 1, 1877.

Kind of bonds.	Fund or tribe.	Date of redemption.	Amount redeemed.
U. S. 5-20 6 per cent., act of March 3, 1865 .	Cherokee national fund.....	Sept. 24, 1878	\$96,984 26
Do	Cherokee school fund.....	Sept. 24, 1878	229,013 55
Do	Cherokee orphan fund.....	Sept. 24, 1878	150,449 94
Do	Chickasaw national fund.....	Sept. 24, 1878	50 95
Do	Chippewa and Christian Indians..	Sept. 24, 1878	4,454 74
Do	Choctaw general fund.....	Sept. 24, 1878	1,781 90
Do	Choctaw school fund.....	Sept. 24, 1878	16,928 00
Do	Creek orphan fund.....	Sept. 24, 1878	414 16
Do	Delaware general fund.....	Sept. 24, 1878	52,587 43
Do	Iowas.....	Sept. 24, 1878	5,220 19
Do	Kansas schools.....	Sept. 24, 1878	1,781 90
Do	Kaskaskias, Peorias, Weas, and Piankeshaws.....	Sept. 24, 1878	97 04
Do	Menomonees.....	Sept. 24, 1878	8,018 52
Do	Osage schools.....	Sept. 24, 1878	6,236 63
Do	Ottawas and Chippewas.....	Sept. 24, 1878	8,909 47
Do	Pottawatomies, education.....	Sept. 24, 1878	2,813 31
Do	Pottawatomies mills.....	Sept. 24, 1878	2 180 09
Do	Sacs and Foxes of the Missouri...	Sept. 24, 1878	5,100 00
Do	Senecas.....	Sept. 24, 1878	37 17
Do	Senecas and Shawnees.....	Sept. 24, 1878	2,621 60
Do	Sacs and Foxes of the Mississippi	Sept. 24, 1878	905 41
Do	Cherokee asylum fund.....	Sept. 24, 1878	67,675 27
Do	Eastern Shawnees.....	Sept. 24, 1878	11,628 47
Total.....			675,950 00

Recapitulation of statements affecting the aggregate of bonds held in trust for various Indian tribes, November 1, 1877.

Whole amount of bonds on hand November 1, 1877.....	\$5,074,316 83½
Amount of bonds since purchased (as per statement No. 1).....	\$781,700 00
Amount of bonds redeemed (as per statement No. 2).....	675,950 00
Excess of bonds purchased over amount redeemed.....	105,750 00
Total amount on hand November 1, 1878.....	\$5,180,066 83½

A.—List of names of Indian tribes for whom stock is held in trust by the Treasurer of the United States, showing the amount standing to the credit of each tribe, the annual interest, the date of treaty or law under which the investment was made, and the amount of abstracted bonds for which Congress has made no appropriation, and the annual interest on the same.

Tribe.	Treaty or act.	Statutes at Large.		Amount of stock.	Annual interest.	Amount of abstracted bonds.	Annual interest.
		Vol.	Page.				
Cherokee national fund	Dec. 29, 1835	7	478	\$944, 641 03	\$53, 147 93	\$62, 000 00	\$4, 080 00
Cherokee school fund {	Feb. 27, 1819	7	195 }	515, 586 82	27, 860 59	15, 000 00	900 00
	Dec. 29, 1835	7	478 }				
Cherokee orphan fund {	Dec. 29, 1835	7	478 }	243, 800 28	13, 007 70	.....	.....
	Feb. 14, 1873	17	462 }				
Cherokee asylum fund	Feb. 14, 1873	17	462	64, 147 17	3, 207 36	.....	.....
Chickasaw national fund . . . {	Oct. 20, 1872	7	381 }	1, 306, 664 81½	74, 428 41	.....	.....
	May 24, 1834	7	450 }				
	June 20, 1878	7	450 }				
Chickasaw incompetents . . .	May 24, 1834	7	450	2, 000 00	100 00	.....	.....
Chippewa and Christian Indians	July 15, 1859	12	1103	42, 560 36	2, 393 64	.....	.....
Choctaw general fund	Jan. 17, 1837	7	605	453, 689 00	27, 184 45	.....	.....
Choctaw school fund	Sept. 27, 1830	7	333	49, 472 70	2, 487 90	.....	.....
Creek orphans	May 24, 1832	7	366	76, 993 66	4, 392 68	.....	.....
Delaware general fund	May 6, 1854	10	1048	456, 501 62	25, 247 91	.....	.....
Delaware school fund	Sept. 24, 1829	7	327	11, 000 00	550 00	.....	.....
Iowas {	May 17, 1854	10	1069 }	104, 780 67	6, 079 00	.....	.....
	Mar. 6, 1861	12	1171 }				
Kansas schools	June 3, 1825	7	244	27, 174 41	1, 503 02	.....	.....
Kaskaskias, Peorias, &c. . . {	May 30, 1854	10	1082 }	80, 042 86	4, 938 18	.....	.....
	Feb. 23, 1867	15	519 }				
Kaskaskias, &c., school fund .	Feb. 23, 1867	15	519	41, 411 97	2, 484 59	.....	.....
Kickapoos	June 28, 1862	13	625	128, 569 91	6, 428 49	.....	.....
Menomonees	Sept. 3, 1836	7	506	153, 039 38	7, 651 97	.....	.....
Osage schools	June 2, 1825	7	240	39, 911 53	1, 995 57	.....	.....
Ottawas and Chippewas	Mar. 28, 1836	7	491	18, 745 00	967 25	.....	.....
Pottawatomies, education . .	Sept. 26, 1833	7	431	76, 947 12	3, 847 36	a 1, 000 00	.....
Pottawatomies, mills	Sept. 26, 1833	7	431	17, 066 44	853 32	.....	.....
Pottawatomies, Prairie band .	.....	.....	.....	89, 618 57	4, 480 93	.....	.....
Sacs and Foxes of Missis- sippi	Feb. 18, 1867	15	495	55, 058 21	2, 752 91	.....	.....
Sacs and Foxes of Missouri .	Mar. 6, 1861	12	1171	21, 659 12	1, 152 96	.....	.....
Senecas {	June 14, 1836	5	47 }	40, 979 60	2, 048 98	.....	.....
	Jan. 9, 1837	5	135 }				
Senecas and Shawnees {	June 14, 1836	5	47 }	15, 140 42	824 63	.....	.....
	Jan. 9, 1837	5	135 }				
Senecas, Tonawanda band . .	Nov. 5, 1857	11	737	86, 950 00	4, 347 50	.....	.....
Shawnees	May 16, 1854	15	515	4, 835 65	241 78	.....	.....
Eastern Shawnees	Feb. 23, 1867	15	515	11, 019 12	553 95	.....	.....
				5, 180, 066 83½	287, 160 96	84, 000 00	4, 980 00

a No interest appropriated on \$1,000 abstracted bond.

B.—Statement of stock account, exhibiting in detail the securities in which the funds of each tribe are invested and now on hand, the annual interest on the same, and the amount of abstracted bonds not provided for by Congress.

Stocks.	Per cent.	Original amount.	Amount of abstracted bonds not provided for by Congress.	Amount on hand.	Annual int. rest.
CHEROKEE NATIONAL FUND.					
State of Florida	7	\$13,000 00	.....	\$13,000 00	\$910 00
State of Louisiana	6	11,000 00	.....	11,000 00	660 00
State of Missouri	6	50,000 00	\$50,000 00	.....	.....
State of North Carolina	6	41,000 00	13,000 00	28,000 00	1,680 00
State of South Carolina	6	118,000 00	.....	118,000 00	7,080 00
State of Tennessee	6	5,000 00	5,000 00	.....	.....
State of Tennessee	5	125,000 00	.....	125,000 00	6,250 00
State of Virginia	6	90,000 00	.....	90,000 00	5,400 00
United States issue to Union Pacific Railroad, eastern division	6	156,638 56	.....	156,638 56	9,398 31
United States, registered, act of March 3, 1865, loan of 1867	6	161,950 00	.....	161,950 00	9,717 00
United States, funded, loan of 1831	5	241,052 47	.....	241,052 47	12,052 62
Total		1,012,641 03	68,000 00	944,641 03	53,147 93
CHEROKEE SCHOOL FUND.					
State of Florida	7	7,000 00	.....	7,000 00	490 00
State of Louisiana	6	2,000 00	.....	2,000 00	120 00
State of North Carolina	6	21,000 00	8,000 00	13,000 00	780 00
State of South Carolina	6	1,000 00	.....	1,000 00	60 00
State of Tennessee	6	7,000 00	7,000 00	.....	.....
State of Virginia (Chesapeake and Ohio Canal Company)	6	1,000 00	.....	1,000 00	60 00
United States issue to Union Pacific Railroad, eastern division	6	51,854 28	.....	51,854 28	3,111 26
United States loan of 10-40s	5	31,200 00	.....	31,200 00	1,560 00
United States, registered, act of March 3, 1865, loan of 1867	6	125,270 29	.....	125,270 29	7,516 22
United States, funded, loan of 1831	5	283,262 25	.....	283,262 25	14,163 11
Total		530,586 82	15,000 00	515,586 82	27,860 59
CHEROKEE ORPHANS' FUND.					
United States issue to Union Pacific Railroad, eastern division	6	.....	.....	22,223 26	1,333 40
United States, registered, act of March 3, 1865, loan of 1867	6	.....	.....	49,545 00	2,972 70
United States, registered, loan of 1868	6	.....	.....	10,000 00	600 00
United States, funded, loan of 1831	5	.....	.....	162,032 02	8,101 60
Total .....		.....	.....	243,800 28	13,007 70
CHEROKEE ASYLUM FUND.					
United States, funded, loan of 1831	5	.....	.....	64,147 17	3,207 36
CHICKASAW NATIONAL FUND.					
State of Arkansas	6	.....	.....	168,000 00	10,080 00
State of Maryland	6	.....	.....	8,350 17	501 01
State of Tennessee	6	.....	.....	616,000 00	36,960 00
State of Tennessee	5½	.....	.....	66,666 66½	3,500 00
State of Virginia (Richmond and Danville Railroad)	6	.....	.....	100,000 00	6,000 00
United States, registered, act of March 3, 1865, loan of 1867	6	.....	.....	500 00	30 00
United States, funded, loan of 1831	5	.....	.....	347,147 93	17,357 40
Total .....		.....	.....	1,306,664 81½	74,428 41
CHICKASAW INCOMPETENTS.					
State of Indiana	5	.....	.....	2,000 00	100 00

B.—Statement of stock account, exhibiting in detail the securities, &c.—Continued.

Stocks.	Per cent.	Original amount.	Amount of abstracted bonds not provided for by Congress.	Amount on hand.	Annual interest.
CHIPPEWA AND CHRISTIAN INDIANS.					
United States, registered, act of March 3, 1865, loan of 1867	6	.....	.....	\$26,562 38	\$1,593 74
United States, funded, loan of 1881	5	.....	.....	15,997 98	799 90
Total .....		.....	.....	42,560 36	2,393 64
CHOCTAW GENERAL FUND.					
State of Virginia, registered	6	.....	.....	450,000 00	27,000 00
United States, registered, loan of 1881	5	.....	.....	3,689 00	184 45
Total .....		.....	.....	453,689 00	27,184 45
CHOCTAW SCHOOL FUND.					
United States, registered, act of March 3, 1865, loan of 1867	6	.....	.....	1,427 20	85 63
United States, registered, loan of 1881	5	.....	.....	48,045 50	2,402 27
Total .....		.....	.....	49,472 70	2,487 90
CREEK ORPHANS.					
State of Tennessee	5	.....	.....	20,000 00	1,000 00
State of Virginia (Richmond and Danville Railroad Company)	6	.....	.....	3,500 00	210 00
State of Virginia (Chesapeake and Ohio Canal Company)	6	.....	.....	9,000 00	540 00
State of Virginia, registered certificates	6	.....	.....	41,800 00	2,508 00
United States, funded, loan of 1881	5	.....	.....	2,693 66	134 68
Total .....		.....	.....	76,993 66	4,392 68
DELAWARE GENERAL FUND.					
State of Florida	7	.....	.....	53,000 00	3,710 00
State of North Carolina	6	.....	.....	87,000 00	5,220 00
United States issue to Union Pacific Railroad, eastern division	6	.....	.....	49,283 90	2,957 03
United States, funded, loan of 1881	5	.....	.....	267,217 72	13,360 88
Total .....		.....	.....	456,501 62	25,247 91
DELAWARE SCHOOL FUND.					
United States, funded, loan of 1881	5	.....	.....	11,000 00	550 00
IOWAS.					
State of Florida	7	.....	.....	22,000 00	1,540 00
State of Louisiana	6	.....	.....	9,000 00	540 00
State of North Carolina	6	.....	.....	21,000 00	1,260 00
State of South Carolina	6	.....	.....	3,000 00	180 00
United States, registered, act of March 3, 1865, loan of 1867	6	.....	.....	7,000 00	420 00
United States, funded, loan of 1881	5	.....	.....	42,780 07	2,139 00
Total .....		.....	.....	104,780 07	6,079 00
KANSAS SCHOOLS.					
United States, registered, act of March 3, 1865, loan of 1867	6	.....	.....	14,430 16	865 81
United States, funded, loan of 1881	5	.....	.....	12,744 25	637 21
Total .....		.....	.....	27,174 41	1,503 02

B.—Statement of stock account, exhibiting in detail the securities, &c.—Continued.

Stocks.	Per cent.	Original amount.	Amount of abstracted bonds not provided for by Congress.	Amount on hand.	Annual interest.
KASKASKIAS, PEORIAS, ETC,					
State of Florida	7	.....	.....	\$16,300 00	\$1,141 00
State of Louisiana	6	.....	.....	15,000 00	900 00
State of North Carolina	6	.....	.....	43,000 00	2,589 00
State of South Carolina	6	.....	.....	3,000 00	180 00
United States, registered, act of March 3, 1865, loan of 1867	6	.....	.....	3 85	23
United States, funded, loan of 1881	5	.....	.....	2,739 01	136 95
Total .....		.....	.....	80,042 86	4,938 18
KASKASKIAS, PEORIAS, ETC., SCHOOL FUND.					
State of Florida	7	.....	.....	20,700 00	1,449 00
United States, funded, loan of 1881	5	.....	.....	20,711 97	1,035 59
Total .....		.....	.....	41,411 97	2,484 59
KICKAPOOS.					
United States, funded, loan of 1881	5	.....	.....	128,569 91	6,428 49
MENOMONEES.					
State of Tennessee	5	.....	.....	19,000 00	950 00
United States, funded, loan of 1881	5	.....	.....	134,039 38	6,701 97
Total .....		.....	.....	153,039 38	7,651 97
OSAGE SCHOOLS.					
United States, funded, loan of 1881	5	.....	.....	39,911 53	1,995 57
OTTAWAS AND CHIPPEWAS.					
State of Tennessee	5	.....	.....	1,000 00	50 00
State of Virginia (Chesapeake and Ohio Canal Company)	6	.....	.....	3,000 00	180 00
United States, funded, loan of 1881	5	.....	.....	14,745 00	737 25
Total .....		.....	.....	18,745 00	967 25
POTTAWATOMIES—EDUCATION.					
State of Indiana	5	.....	.....	4,000 00	200 00
United States, funded, loan of 1881	5	.....	.....	72,947 12	3,647 36
Total .....		.....	.....	76,947 12	3,847 36
PRAIRIE BAND OF POTTAWATOMIES.					
United States, funded, loan of 1881	5	.....	.....	89,618 57	4,480 93
POTTAWATOMIES—MILLS.					
United States, funded, loan of 1881	5	.....	.....	17,066 44	853 32
SACS AND FOXES OF THE MISSISSIPPI.					
United States 10-40s	5	.....	.....	54,200 00	2,710 00
United States, funded, loan of 1881	5	.....	.....	858 21	42 91
Total .....		.....	.....	55,058 21	2,752 91
SACS AND FOXES OF THE MISSOURI.					
United States, registered, act of March 3, 1865, loan of 1867	6	.....	.....	7,000 00	420 00
United States, funded, loan of 1881	5	.....	.....	14,659 12	732 96
Total .....		.....	.....	21,659 12	1,152 96

B.—Statement of stock account, exhibiting in detail the securities, &c.—Continued.

Stocks.	Per cent.	Original amount.	Amount of abstracted bonds not provided for by Congress.	Amount on hand.	Annual interest.
SENECAS.					
United States, funded, loan of 1861.....	5	.....	.....	\$40,979 60	\$2,048 98
SENECAS AND SHAWNEES.					
United States 10-40s.....	5	.....	.....	1,000 00	50 00
United States, registered, act of March 3, 1865, loan of 1867.....	6	.....	.....	6,761 12	405 67
United States, funded, loan of 1881.....	5	.....	.....	7,379 30	368 96
Total.....		.....	.....	15,140 42	824 63
SENECAS—TONAWANDA BAND.					
United States, funded, loan of 1881.....	5	.....	.....	86,950 00	4,347 50
SHAWNEES.					
United States, funded, loan of 1881.....	5	.....	.....	4,835 65	241 78
EASTERN SHAWNEES.					
United States, funded, loan of 1881.....	5	.....	.....	11,079 12	553, 95

C.—Statement of stocks held by the Treasurer of the United States in trust for the various Indian tribes, showing the amount now on hand; also abstracted bonds, for which Congress has made no appropriation.

Stocks.	Per cent.	Amount on hand.	Amount of abstracted bonds.
State of Arkansas.....	6	\$168,000 00	.....
State of Florida.....	7	132,000 00	.....
State of Indiana.....	5	6,000 00	\$1,000 00
State of Louisiana.....	6	37,000 00	.....
State of Maryland.....	6	8,350 17	.....
State of Missouri.....	6	.....	50,000 00
State of North Carolina.....	6	192,000 00	21,000 00
State of South Carolina.....	6	125,000 00	.....
State of Tennessee.....	6	616,000 00	12,000 00
State of Tennessee.....	5	165,000 00	.....
State of Tennessee.....	5½	66,666 66½	.....
State of Virginia.....	6	698,300 00	.....
United States 10-40s.....	5	86,400 00	.....
United States, registered, act of March 3, 1865, loan of 1867.....	6	400,450 00	.....
United States, registered, act of March 3, 1865, loan of 1868.....	6	10,000 00	.....
United States, issue to Union Pacific Railroad, Eastern Division.....	6	280,000 00	.....
United States, funded loan of 1881.....	5	2,188,900 00	.....
Total.....		5,180,066 83½	84,000 00

D.—Statement of funds held in trust by the government in lieu of investment.

Tribes.	Date of acts, resolutions, or treaties.	Statutes at Large.			Amount in the U. S. Treasury.	Annual interest at 5 per cent.
		Vol.	Page	Sec.		
Choctaws	Jan. 20, 1825	7	236	9	\$390,257 92	\$19,512 89
Creeks	June 22, 1855	11	614	3		
	Aug. 7, 1856	11	701	6	200,000 00	10,000 00
	June 14, 1866	14	786	3	675,168 00	33,758 40
Cherokees	July 15, 1870	16	362	.....	721,748 80	36,087 44
	June 5, 1872	17	228	.....		
Iowas	May 7, 1854	10	1071	9	57,500 00	2,875 00
Kansas	June 14, 1846	9	842	2	200,000 00	10,000 00
Kickapoos	May 18, 1854	10	1079	2	93,581 09	4,679 05
Miamies of Indiana	June 5, 1854	10	1099	4	221,257 86	11,062 89
Miamies of Kansas	June 5, 1854	10	1094	3	21,884 81	1,094 24
Osages	June 2, 1825	7	242	6	69,120 00	3,456 00
	Sept. 29, 1865	14	687	1	300,000 00	15,000 00
	July 15, 1870	16	362	12	*1,014,381 46	50,719 07
	May 9, 1872	17	91	2		
Pottawatomies	June 5, 1846	9	854	7	230,064 20	11,503 21
	June 17, 1846					
Sacs and Foxes of the Mississippi	Oct. 2, 1837	7	541	2	200,000 00	10,000 00
	Oct. 11, 1842	7	596	2	800,000 00	40,000 00
Sacs and Foxes of the Missouri	Oct. 21, 1837	7	543	2	157,400 00	7,870 00
Seminoles	Aug. 7, 1856	11	702	8	500,000 00	25,000 00
	May 21, 1866	14	757	3	70,000 00	3,500 00
Senecas of New York	June 27, 1846	9	35	2, 3	118,050 00	5,902 50
Shawnees	May 10, 1854	10	1056	3	40,000 00	2,000 00
Stockbridges and Munsees	Feb. 6, 1871	16	405	4, 5	75,804 46	3,790 22
Winnebagoes	Nov. 1, 1837	7	546	4	804,909 17	40,245 45
	July 15, 1870	16	355	.....	78,340 41	3,917 02
Tabeguache and other bands of Utes....	Apr. 29, 1874	18	41	2	500,000 00	25,000 00
Amount of 5 per cent. funds, as above stated, held by the government in lieu of investment.....					7,539,468 18	
Amount of annual interest.....						376,973 38

* Amount held in trust March 1, 1878.

D No. 2.—Funds held by the government in lieu of abstracted bonds.

Tribes.	Date of acts, resolutions, or treaties.	Statutes at Large.			Amount in the U. S. Treasury.	Annual interest at 5 per cent.
		Vol.	Page	Sec.		
Amounts brought forward from statement D.					\$7,539,468 18	\$376,973 38
Kaskaskias, Peorias, &c.....	July 12, 1862	12	539	.....	14,861 28	743 06
Delawares	July 12, 1862	12	539	.....	406,571 28	20,328 56
Iowas	July 12, 1862	12	539	.....	66,735 00	3,336 75
Total amount in lieu of investment.....					8,027,635 74	
Total annual interest on same.....						401,381 75

The changes in the account of funds held in lieu of investment are accounted for as follows, viz:

Amount reported in statements D and D No. 2, November 1, 1877..... \$7,881,373 37

This fund has been increased by—

Net proceeds of Osage lands from March 1, 1877, to March 1, 1878..... \$174,377 56

And decreased by—

Appropriation of funds of Miamies of Kansas per act of March 3, 1877..... 28,115 19

Net increase 146,262 37

Total as before stated..... 8,027,635 74

E.—Interest collected on United States bonds payable in coin, and premium realized on coin sold.

Fund or tribe.	Face of bonds.	Period for which interest was collected.	Coin inter-est.	Premium realized.
Cherokee national fund.....	\$149,124 26	Aug. 1, 1877, to Nov. 1, 1877	\$1,864 05	\$46 93
	258,934 26	July 1, 1877, to Jan. 1, 1878	7,768 03	179 64
	149,124 26	Nov. 1, 1877, to Feb. 1, 1878	1,864 05	34 95
	149,124 26	Feb. 1, 1878, to May 1, 1878	1,864 05	6 99
	258,934 26	Jan. 1, 1878, to July 1, 1878	7,768 03	53 40
	149,124 26	May 1, 1878, to Aug. 1, 1878	1,864 05	9 32
			22,992 26	331 23
Cherokee school fund	66,198 70	Aug. 1, 1877, to Nov. 1, 1877	827 48	20 84
	354,283 84	July 1, 1877, to Jan. 1, 1878	10,628 51	245 78
	66,198 70	Nov. 1, 1877, to Feb. 1, 1878	827 48	15 52
	31,200 00	Sept. 1, 1877, to Mar. 1, 1878	780 00	6 82
	66,198 70	Feb. 1, 1878, to May 1, 1878	827 48	3 10
	354,283 84	Jan. 1, 1878, to July 1, 1878	10,628 51	73 08
	66,198 70	May 1, 1878, to Aug. 1, 1878	827 48	4 14
	31 200 00	Mar. 1, 1878, to Sept. 1, 1878	780 00	3 90
			26,126 94	373 18
Cherokee asylum fund	67,675 27	July 1, 1877, to Jan. 1, 1878	2,030 26	46 95
	67,675 27	Jan. 1, 1878, to July 1, 1878	2,030 26	13 96
			4,060 52	60 91
Cherokee orphan fund	19,425 44	Aug. 1, 1877, to Nov. 1, 1877	242 82	6 11
	209,994 94	July 1, 1877, to Jan. 1, 1878	6,299 85	145 68
	19,425 44	Nov. 1, 1877, to Feb. 1, 1878	242 82	4 55
	19,425 44	Feb. 1, 1878, to May 1, 1878	242 82	91
	209,994 94	Jan. 1, 1878, to July 1, 1878	6,299 85	43 31
	19,425 44	May 1, 1878, to Aug. 1, 1878	242 82	1 21
			13,570 98	201 77
Chickasaw national fund	206,099 70	Aug. 1, 1877, to Nov. 1, 1877	2,576 25	64 85
	550 95	July 1, 1877, to Jan. 1, 1878	16 53	38
	206,099 70	Nov. 1, 1877, to Feb. 1, 1878	2,576 25	48 30
	206,099 70	Feb. 1, 1878, to May 1, 1878	2,576 25	9 66
	550 95	Jan. 1, 1878, to July 1, 1878	16 53	11
	206,099 70	May 1, 1878, to Aug. 1, 1878	2,576 25	12 88
			10,338 06	136 18
Chippewa and Christian Indians	11,775 48	Aug. 1, 1877, to Nov. 1, 1877	147 19	3 71
	31,017 12	July 1, 1877, to Jan. 1, 1878	930 51	21 52
	11,775 48	Nov. 1, 1877, to Feb. 1, 1878	147 19	2 76
	11,775 48	Feb. 1, 1878, to May 1, 1878	147 19	55
	31,017 12	Jan. 1, 1878, to July 1, 1878	930 51	6 40
	11,775 48	May 1, 1878, to Aug. 1, 1878	147 19	74
			2,449 78	35 68
Choctaw general fund.....	2,000 00	Aug. 1, 1877, to Nov. 1, 1877	25 00	63
	1,781 90	July 1, 1877, to Jan. 1, 1878	53 46	1 24
	2,000 00	Nov. 1, 1877, to Feb. 1, 1878	25 00	47
	2,000 00	Feb. 1, 1878, to May 1, 1878	25 00	09
	1,781 90	Jan. 1, 1878, to July 1, 1878	53 46	37
	2,000 00	May 1, 1878, to Aug. 1, 1878	25 00	13
			206 92	2 93
Choctaw school fund.....	\$32,000 00	Aug. 1, 1877, to Nov. 1, 1877	400 00	10 07
	18,355 20	July 1, 1877, to Jan. 1, 1878	550 66	12 73
	32,000 00	Nov. 1, 1877, to Feb. 1, 1878	400 00	7 50
	32,000 00	Feb. 1, 1878, to May 1, 1878	400 00	1 50
	18,355 20	Jan. 1, 1878, to July 1, 1878	550 66	3 78
	32,000 00	May 1, 1878, to Aug. 1, 1878	400 00	2 00
			2,701 32	37 58
Creek orphans	2,301 09	Aug. 1, 1877, to Nov. 1, 1877	28 76	73
	414 16	July 1, 1877, to Jan. 1, 1878	12 43	29
	2,301 09	Nov. 1, 1877, to Feb. 1, 1878	28 76	54
	2,301 09	Feb. 1, 1878, to May 1, 1878	28 76	11
	414 16	Jan. 1, 1878, to July 1, 1878	12 43	9
	2,301 09	May 1, 1878, to Aug. 1, 1878	28 76	14
			139 90	1 90
Delaware general fund.....	217,371 82	Aug. 1, 1877, to Nov. 1, 1877	2,717 15	68 41
	52,587 43	July 1, 1877, to Jan. 1, 1878	1,577 62	36 48

E.—Interest collected on United States bonds, payable in coin, &c.—Continued.

Fund or tribe.	Face of bonds.	Period for which interest was collected.	Coin interest.	Premium realized.
Delaware general fund.....	217,371 82	Nov. 1, 1877, to Feb. 1, 1878	\$2,717 15	\$50 95
	217,371 82	Feb. 1, 1878, to May 1, 1878	2,717 15	10 19
	52,587 43	Jan. 1, 1878, to July 1, 1878	1,577 62	10 85
	217,371 82	May 1, 1878, to Aug. 1, 1878	2,717 15	13 59
			14,023 84	190 47
Delaware school fund.....	11,000 00	Aug. 1, 1877, to Nov. 1, 1877	137 50	3 47
	11,000 00	Nov. 1, 1877, to Feb. 1, 1878	137 50	2 58
	11,000 00	Feb. 1, 1878, to May 1, 1878	137 50	52
	11,000 00	May 1, 1878, to Aug. 1, 1878	137 50	69
			550 00	7 26
Iowas.....	37,832 02	Aug. 1, 1877, to Nov. 1, 1877	472 90	11 90
	12,220 19	July 1, 1877, to Jan. 1, 1878	366 60	8 48
	37,832 02	Nov. 1, 1877, to Feb. 1, 1878	472 90	8 87
	37,832 02	Feb. 1, 1878, to May 1, 1878	472 90	1 77
	12,220 19	Jan. 1, 1878, to July 1, 1878	366 60	2 52
	37,832 02	May 1, 1878, to Aug. 1, 1878	472 90	2 36
			2,624 80	35 90
Kansas schools	11,055 25	Aug. 1, 1877, to Nov. 1, 1877	138 19	3 47
	16,212 06	July 1, 1877, to Jan. 1, 1878	486 36	11 25
	11,055 25	Nov. 1, 1877, to Feb. 1, 1878	138 19	2 59
	11,055 25	Feb. 1, 1878, to May 1, 1878	138 19	52
	16,212 06	Jan. 1, 1878, to July 1, 1878	486 36	3 34
	11,055 25	May 1, 1878, to Aug. 1, 1878	138 19	69
			1,525 48	21 86
Kickapoos	128,569 91	Aug. 1, 1877, to Nov. 1, 1877	1,607 12	40 64
	128,569 91	Nov. 1, 1877, to Feb. 1, 1878	1,607 12	30 13
	128,569 91	Feb. 1, 1878, to May 1, 1878	1,607 12	6 03
	128,569 91	May 1, 1878, to Aug. 1, 1878	1,607 12	8 04
			6,428 48	84 66
Kaskaskias, Peorias, Weas, and Piankeshaws.	2,647 03	Aug. 1, 1877, to Nov. 1, 1877	33 09	86
	100 89	July 1, 1877, to Jan. 1, 1878	3 03	07
	2,647 03	Nov. 1, 1877, to Feb. 1, 1878	33 09	62
	2,647 03	Feb. 1, 1878, to May 1, 1878	33 09	12
	100 89	Jan. 1, 1878, to July 1, 1878	3 03	02
	2,647 03	May 1, 1878, to Aug. 1, 1878	33 09	17
			138 42	1 86
Kaskaskias, Peorias, Weas, and Piankeshaws school fund.	20,711 97	Aug. 1, 1877, to Nov. 1, 1877	258 90	6 52
	20,711 97	Nov. 1, 1877, to Feb. 1, 1878	258 90	4 86
	20,711 97	Feb. 1, 1878, to May 1, 1878	258 90	97
	20,711 97	May 1, 1878, to Aug. 1, 1878	258 90	1 29
			1,035 60	13 64
Menomonees.....	\$126,438 89	Aug. 1, 1877, to Nov. 1, 1877	1,580 49	39 79
	8,018 52	July 1, 1877, to Jan. 1, 1878	240 55	5 56
	126,438 89	Nov. 1, 1877, to Feb. 1, 1878	1,580 49	29 63
	126,438 89	Feb. 1, 1878, to May 1, 1878	1,580 49	5 93
	8,018 52	Jan. 1, 1878, to July 1, 1878	240 56	1 65
	126,438 89	May 1, 1878, to Aug. 1, 1878	1,580 49	7 90
			6,803 07	90 46
Osage schools	34,000 00	Aug. 1, 1877, to Nov. 1, 1877	425 00	10 69
	6,236 63	July 1, 1877, to Jan. 1, 1878	187 10	4 33
	34,000 00	Nov. 1, 1877, to Feb. 1, 1878	425 00	7 97
	34,000 00	Feb. 1, 1878, to May 1, 1878	425 00	1 59
	6,236 63	Jan. 1, 1878, to July 1, 1878	187 10	1 29
	34,000 00	May 1, 1878, to Aug. 1, 1878	425 00	2 12
			2,074 20	27 99
Itawas and Chippewas.....	6,300 00	Aug. 1, 1877, to Nov. 1, 1877	78 75	1 98
	8,909 47	July 1, 1877, to Jan. 1, 1878	267 28	6 18
	6,300 00	Nov. 1, 1877, to Feb. 1, 1878	78 75	1 48
	6,300 00	Feb. 1, 1878, to May 1, 1878	78 75	30
	8,909 47	Jan. 1, 1878, to July 1, 1878	267 28	1 84
	6,300 00	May 1, 1878, to Aug. 1, 1878	78 75	40
			849 56	12 18

E.—Interest collected on United States bonds, payable in coin, &c.—Continued.

Fund or tribe.	Face of bonds.	Period for which interest was collected.	Coin interest.	Premium realized.
Pottawatomies, education	70,280 48	Aug. 1, 1877, to Nov. 1, 1877	\$878 51	\$22 11
	2,813 31	July 1, 1877, to Jan. 1, 1878	84 40	1 95
	70,280 48	Nov. 1, 1877, to Feb. 1, 1878	878 51	16 47
	70,280 48	Feb. 1, 1878, to May 1, 1878	878 51	3 29
	2,813 31	Jan. 1, 1878, to July 1, 1878	84 40	58
	70,280 48	May 1, 1878, to Aug. 1, 1878	878 51	4 39
			3,682 84	48 79
Pottawatomies, mills	15,000 00	Aug. 1, 1877, to Nov. 1, 1877	187 50	4 72
	15,000 00	Nov. 1, 1877, to Feb. 1, 1878	187 50	3 52
	2,180 09	July 1, 1877, to Jan. 1, 1878	65 40	1 51
	15,000 00	Feb. 1, 1878, to May 1, 1878	187 50	70
	2,180 09	Jan. 1, 1878, to July 1, 1878	65 40	45
	15,000 00	May 1, 1878, to Aug. 1, 1878	187 50	94
			880 80	11 84
Pottawatomies' general fund for Prairie band.	89,618 57	Aug. 1, 1877, to Nov. 1, 1877	1,120 23	28 20
	89,618 57	Nov. 1, 1877, to Feb. 1, 1878	1,120 23	21 00
	89,618 57	Feb. 1, 1878, to May 1, 1878	1,120 23	4 20
	89,618 57	May 1, 1878, to Aug. 1, 1878	1,120 23	5 60
			4,480 92	59 00
Sacs and Foxes of the Missouri.....	9,825 00	Aug. 1, 1877, to Nov. 1, 1877	122 81	3 09
	12,100 00	July 1, 1877, to Jan. 1, 1878	363 00	8 39
	9,825 00	Nov. 1, 1877, to Feb. 1, 1878	122 81	2 30
	9,825 00	Feb. 1, 1878, to May 1, 1878	122 81	46
	12,100 00	Jan. 1, 1878, to July 1, 1878	363 00	2 49
	9,825 00	May 1, 1878, to Aug. 1, 1878	122 81	61
			1,217 24	17 34
Sacs and Foxes of the Mississippi....	905 41	July 1, 1877, to Jan. 1, 1878	27 16	63
	54,200 00	Sept. 1, 1877, to Mar. 1, 1878	1,355 00	11 86
	905 41	Jan. 1, 1878, to July 1, 1878	27 16	19
	54,200 00	Mar. 1, 1878, to Sept. 1, 1878	1,355 00	6 77
			2,764 32	19 45
Senecas	40,944 37	Aug. 1, 1877, to Nov. 1, 1877	511 80	12 88
	40,944 37	Nov. 1, 1877, to Feb. 1, 1878	511 80	9 60
	40,944 37	Feb. 1, 1878, to May 1, 1878	511 80	1 92
	37 17	July 1, 1877, to July 1, 1878	2 24	04
	40,944 37	May 1, 1878, to Aug. 1, 1878	511 80	2 56
			2,049 44	27 00
Senecas (Tonawanda band)	86,950 00	Aug. 1, 1877, to Nov. 1, 1877	1,086 88	27 36
	86,950 00	Nov. 1, 1877, to Feb. 1, 1878	1,086 88	20 38
	86,950 00	Feb. 1, 1878, to May 1, 1878	1,086 88	4 08
	86,950 00	May 1, 1878, to Aug. 1, 1878	1,086 88	5 43
			4,347 52	57 25
Senecas and Shawnees	4,894 37	Aug. 1, 1877, to Nov. 1, 1877	61 18	1 54
	9,382 72	July 1, 1877, to Jan. 1, 1878	281 48	6 51
	4,894 37	Nov. 1, 1877, to Feb. 1, 1878	61 18	1 15
	9,382 72	Jan. 1, 1878, to July 1, 1878	281 48	1 93
	4,894 37	Feb. 1, 1878, to May 1, 1878	61 18	23
	4,894 37	May 1, 1878, to Aug. 1, 1878	61 18	31
	1,000 00	Sept. 1, 1877, to Mar. 1, 1878	25 00	22
	1,000 00	Mar. 1, 1878, to Sept. 1, 1878	25 00	13
			857 68	12 02
Shawnees	4,835 65	Aug. 1, 1877, to Nov. 1, 1877	60 45	1 52
	4,835 65	Nov. 1, 1877, to Feb. 1, 1878	60 45	1 13
	4,835 65	Feb. 1, 1878, to May 1, 1878	60 45	23
	4,835 65	May 1, 1878, to Aug. 1, 1878	60 45	30
			241 80	3 18
Eastern Shawnees	11,688 47	July 1, 1877, to Jan. 1, 1878	350 65	8 11
	11,688 47	Jan. 1, 1878, to July 1, 1878	350 65	2 41
			701 30	10 52

F.—Interest collected on United States bonds, payable in currency.

Fund or tribe.	Face of bonds.	Period for which interest was collected.	Amount collected.
Cherokee national fund.....	\$156,638 56	July 1, 1877, to July 1, 1878	\$9,398 32
Cherokee school fund.....	51,854 28	July 1, 1877, to July 1, 1878	3,111 26
Cherokee orphan fund.....	22,223 26	July 1, 1877, to July 1, 1878	1,333 40
Delaware general fund.....	49,283 90	July 1, 1877, to July 1, 1878	2,957 02
Total.....	280,000 00		16,800 00

G.—Interest collected on certain State bonds, the interest on which is regularly paid.

Fund or tribe.	Face of bonds.	Period for which interest is regularly paid.	Amount collected.
<i>Maryland 6 per cent. bonds.</i>			
Chickasaw national fund.....	\$8,350 17	Oct. 1, 1877, to July 1, 1878	\$360 09

H.—Collections of interest made since November 1, 1877, falling due since July 1, 1877.

Fund or tribe.	Amount collected.	Period.		On what amount of bonds.	Kind of bonds.	Amount carried to the credit of Indian tribes.
		From—	To—			
Chickasaw national fund.	\$6,000	July 1, 1877	July 1, 1878	\$100,000	Virginia, Richmond and Danville Railroad.	\$6,000
Chickasaw national fund.	30,720	July 1, 1877	July 1, 1878	512,000	Nashville and Chattanooga Railroad.	30,720
Chickasaw incompetents.	100	July 1, 1877	July 1, 1878	2,000	Indiana.....	100
Creek orphans.....	210	July 1, 1877	July 1, 1878	3,500	Virginia, Richmond and Danville Railroad.	210
Pottawatomies, education	200	July 1, 1877	July 1, 1878	4,000	Indiana.....	200
Total.....	37,230			621,500		37,230

Recapitulation of interest collected, premiums, &c., as per tables hereinbefore given.

Coin-interest on United States bonds, (Table E).....	\$139,863 99
Interest on United States bonds, currency, (Table F).....	16,800 00
Interest on paying State stocks, (Table G).....	360 09
Interest collected on non-paying bonds due since July 1, 1877, (Table H).....	37,230 00

Total interest collected during the time specified.....	194,254 08
Add premium on coin interest on United States bonds.....	1,934 03

Total premium and interest carried to the credit of trust-fund interest due various Indian tribes.....	196,188 11
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Statement of appropriations made by Congress for the year ending June 30, 1878, on non-paying stocks held in trust by the Secretary of the Interior for various Indian tribes.

Bonds.	Per cent.	Principal.	Annual interest appropriated.
Arkansas.....	6	\$168,000 00	\$10,080 00
Florida.....	7	132,000 00	9,240 00
North Carolina.....	6	192,000 00	11,520 00
South Carolina.....	6	125,000 00	7,500 00
Tennessee.....	6	104,000 00	6,240 00
Tennessee.....	5½	66,666 66½	3,500 00
Tennessee.....	5	165,000 00	8,250 00
Virginia.....	6	594,800 00	35,688 00
Louisiana.....	6	37,000 00	2,220 00
Total amount appropriated.....			94,238 00

Statement showing the appropriations, whether in accordance with treaty stipulations or otherwise, for the several Indian tribes, &c.—Continued.

Tribes and funds.	Principal—		Interest on trust-funds collected by the Treasury.	Appropriations for the fiscal year ending June 30, 1879, in addition to interest on stock and funds held in trust.			Total.
	Of stocks and bonds held in trust.	Of funds in the Treasury to their credit.		Interest on funds in the Treasury.	Fulfilling treaties.	Special.	
Miamies of Eel River .....	.....	.....	.....	.....	\$1, 100 00	.....	\$1, 100 00
Miamies of Indiana .....	.....	\$221, 257 86	.....	.....	.....	.....	11, 062 89
Miamies of Kansas .....	.....	18, 521 65	.....	.....	5, 664 80	.....	6, 590 88
Molels .....	.....	.....	.....	.....	3, 000 00	.....	3, 000 00
Mixed Shoshones, Bannocks, and Sheepaters .....	.....	.....	.....	.....	.....	\$20, 000 00	20, 000 00
Navajoes .....	.....	.....	.....	.....	80, 840 00	.....	80, 840 00
Nez Percés .....	.....	.....	.....	.....	19, 800 00	.....	19, 800 00
Northern Cheyennes and Arapahoes .....	.....	.....	.....	.....	18, 000 00	.....	18, 000 00
Omahas .....	.....	.....	.....	.....	20, 000 00	.....	20, 000 00
Osages	\$39, 911 53	1, 383, 501 46	\$1, 995 57	82, 983 27	.....	.....	84, 978 84
Otoes and Missourias .....	.....	.....	.....	.....	9, 000 00	6, 000 00	15, 000 00
Ottawas and Chippewas	18, 745 00	.....	967 25	.....	.....	.....	967 25
Pawnees .....	.....	.....	.....	.....	50, 000 00	.....	50, 000 00
Poncas .....	.....	.....	.....	.....	15, 500 00	64, 000 00	79, 500 00
Pottawatomes	183, 632 13	230, 064 20	9, 181 61	11, 503 21	9, 144 44	.....	29, 829 26
Pottawatomes of Huron .....	.....	.....	.....	.....	400 00	.....	400 00
Quapaws .....	.....	.....	.....	.....	2, 060 00	.....	2, 060 00
Quinaltals and Quillehutes .....	.....	.....	.....	.....	6, 200 00	.....	6, 200 00
Sacs and Foxes of the Mississippi	55, 058 21	1, 000, 000 00	2, 752 91	50, 000 00	1, 000 00	.....	53, 752 91
Sacs and Foxes of the Missouri	21, 659 12	157, 400 00	1, 152 96	7, 870 00	200 00	.....	9, 222 96
Seminoles .....	.....	570, 000 00	.....	28, 500 00	.....	.....	28, 500 00
Senecas	40, 979 60	.....	2, 048 98	.....	2, 660 00	.....	4, 708 98
Senecas of New York .....	.....	118, 050 00	.....	5, 902 50	6, 000 00	.....	11, 902 50
Senecas and Shawnees	15, 140 42	.....	824 63	.....	2, 060 00	.....	2, 884 63
Senecas, Tonawanda band	86, 950 00	.....	4, 347 50	.....	.....	.....	4, 347 50
Shawnees	4, 835 65	40, 000 00	241 78	2, 000 00	3, 000 00	.....	5, 241 78
Shawnees, eastern band	11, 079 12	.....	553 95	.....	.....	.....	5, 553 95
Shoshones .....	.....	.....	.....	.....	11, 000 00	.....	11, 000 00
Shoshones and Bannocks .....	.....	.....	.....	.....	68, 937 00	.....	68, 937 00
Six Nations of New York .....	.....	.....	.....	.....	4, 500 00	.....	4, 500 00
Sioux of different tribes, including Santee Sioux in the State of Nebraska .....	.....	.....	.....	.....	393, 200 00	1, 125, 000 00	1, 518, 200 00
Sisseton and Wahpeton and Santee Sioux of Lake Traverse and Devil's Lake .....	.....	.....	.....	.....	80, 000 00	.....	80, 000 00
Sioux, Yankton tribe .....	.....	.....	.....	.....	40, 000 00	50, 000 00	90, 000 00
Snakes, Wall pah-pee tribe .....	.....	.....	.....	.....	1, 200 00	.....	1, 200 00
S'Kallama .....	.....	.....	.....	.....	8, 200 00	.....	8, 200 00
Stockbridges and Munsoes .....	.....	75, 804 46	.....	3, 790 23	.....	.....	3, 790 23

				720 00	720 00
Utes, Tabeguache band.....	500,000 00	25,000 00	78,020 00	103,020 00	
Tabeguache, Muache, Capote, Weeminuche, Yampa, Grand River, and			14,500 00	14,500 00	
Uintah bands of Utes.....					
Walla Walla, Cayuse, and Umatilla tribes.....	883,249 58	44,162 47		44,162 47	
Winnebagoes.....					
Wichitas, and other affiliated bands, for colonizing and support.....			24,000 00	24,000 00	
Yakamas.....			19,600 00	19,600 00	
Indian service in Arizona.....				40,000 00	
Indian service in California.....				35,000 00	
Indian service in Colorado Territory.....				4,000 00	
Indian service in Dakota Territory.....				16,000 00	
Indian service in Idaho Territory.....				5,000 00	
Indian service in Montana Territory.....				6,000 00	
Indian service in Nevada.....				15,000 00	
Indian service in New Mexico.....				20,000 00	
Indian service in Oregon.....				25,000 00	
Indian service in Utah Territory.....				12,000 00	
Indian service in Washington Territory.....				20,000 00	
Indian service in Wyoming Territory.....				2,000 00	
For Indian civilization and subsistence in Central Superintendency.....				20,000 00	
For contingencies, Indian Department.....				32,000 00	
For contingencies, Indian trust-funds.....				500 00	
For building and repairs at Indian agencies.....				15,000 00	
For pay of Indian agents.....				103,800 00	
For pay of Indian inspectors.....				9,000 00	
For pay of interpreters.....				27,100 00	
For expenses of Indian inspectors.....				4,000 00	
For expenses of Indian commissioners.....				15,000 00	
Transportation of Indian supplies.....				225,000 00	
Salary of Ouray, head chief of the Ute Nation.....				1,000 00	
Support of Tonkawas at Fort Griffin.....				2,000 00	
Support of schools not otherwise provided for.....				60,000 00	
For support of Chippewas on White Earth reservation.....				5,000 00	
Telegraphing and purchase of Indian supplies.....				25,000 00	
Vaccination of Indians.....				500 00	
Settlement, subsistence, and support of Shoshones and Bannacks and					
other bands in Idaho and Southeastern Oregon.....				15,000 00	
Support of Gros Ventres in Montana.....				25,000 00	
Wagon-road for Ute Reservation, Colorado.....				1,500 00	
Pay of Indian police.....				30,000 00	
Buildings for Gros Ventres.....				590 00	
Total.....	5,263,066 83½	415,021 79	1,324,331 96	2,954,990 00	4,986,484 71
	8,024,272 58	292,140 96			

The receipts and disbursements since November 1, 1877, as shown by the books of this office, on account of sales of Indian lands, including receipts from sales made under the direction of the General Land Office, are exhibited in the following statement:

Appropriations.	Acts and treaties.	On hand No- vember 1, 1877.	Amount re- ceived dar- ing year.	Disbursed during the year.	On hand No- vember 1, 1878.
Proceeds of Sioux reservations in Minnesota and Dakota.	12 Stat., 819, act March 3, 1863.	\$9,974 12	\$38,580 20	\$605 30	\$47,949 02
Proceeds of Winnebago reservations in Minnesota.	Secs. 2 and 3, act of Feb. 21, 1863.	1,009 25	650 00	.....	1,659 25
Fulfilling treaty with Cherokees, proceeds of lands.	Cherokee strip....	2,021 38	6,433 76	3,811 79	4,643 35
Fulfilling treaty with Cherokees, proceeds of school-lands.	Treaties of Feb. 27, 1819, and Dec. 29, 1835.	323 18	100 35	.....	423 53
Payment to L'Anse and Vieux de Sert Chippewas for lands.	Act of June 22, 1874, 18 Stat., 140.	20,000 00	.....	.....	20,000 00
Fulfilling treaty with Iowas, proceeds of lands.	Royalty on coal....	28 30	.....	.....	28 30
Fulfilling treaty with Kansas, proceeds of lands.	Art. 4, treaty of Oct. 5, 1859, 12 Stat., 1112.	13,090 42	192 24	5,178 60	8,104 06
Fulfilling treaty with Kaskaskias, proceeds of lands.	Treaty of Feb. 23, 1867 (10 sections).	96 78	.....	.....	96 78
Fulfilling treaty with Menomonees, proceeds of lands.	Treaty of Feb. 11, 1856, 11 Stat., 679.	12,770 33	1,346 97	7,170 20	6,947 10
Fulfilling treaty with Miamies of Kansas, proceeds of lands.	Act of March 3, 1873.	12,053 09	413 56	1,586 42	10,880 23
Fulfilling treaty with Omahas, proceeds of lands.	Act of July 31, 1872.	712 26	.....	.....	712 26
Fulfilling treaty with Osages, proceeds of trust-lands.	2d art. treaty Sept. 29, 1865, 2 sec., act July 15, 1870.	1,114,496 60	182,848 69	78,915 31	1,218,429 98
Proceeds of New York Indian lands in Kansas.	Acts of Feb. 19, 1873, and June 23, 1874.	4,058 06	.....	.....	4,058 06
Fulfilling treaty with Pottawatomies, proceeds of lands.	Treaty February 27, 1867, 15 Stat., 532.	32,767 63	.....	.....	32,767 63
Fulfilling treaty with Stockbridges, proceeds of lands.	Treaty February 11, 1856, 11 Stat., 679; act of February 6, 1871, 16 Stat., 404.	171 93	.....	90 35	81 58
Fulfilling treaty with Winnebagoes, proceeds of lands.	2d art. treaty 1859, act Feb. 2, 1863.	20,610 37	.....	.....	20,610 37
On account of claims of settlers on Round Valley Indian reservation in California, restored to public lands.	Act of March 3, 1873, 17 Stat., 633.	1,094 37	.....	.....	1,094 37
Fulfilling treaty with Cherokees, proceeds of Osage diminished reserve lands in Kansas.	Transfer for sale of lands to Osages. (See Osages.)	721,748 80	.....	.....	721,748 80
Fulfilling treaty with Delawares, proceeds of lands. (Refundment by Agent Pratt.)	2d art. treaty July 4, 1866, 14 Stat., 794.	105 64	.....	.....	105 64
Fulfilling treaty with Kickapoos, proceeds of lands.	Treaty of June 28, 1862, 13 Stat., 623.	1 08	.....	.....	1 08
Fulfilling treaty with Sacs and Foxes of Missouri, proceeds of lands.	Treaty Mar. 6, 1861, 12 Stat., 1171, act August 15, 1876.	247 17	7,183 29	.....	7,430 46
Fulfilling treaty with Shawnees, proceeds of lands.	Acts of April 7, 1869, and Jan. 11, 1875.	400 00	.....	.....	400 00
Fulfilling treaty with Ottawas of Blanchard's Fork and Roche de Boeuf, proceeds of lands.	Refundment .....	.....	43 49	.....	43 49
Fulfilling treaty with Chippewas of Saginaw, proceeds of lands.	do .....	.....	400 00	.....	400 00
Fulfilling treaty with Ottoes and Missourias, proceeds of lands.	Act Aug. 15, 1876..	.....	37,408 03	.....	37,408 03
Total.....	.....	1,967,780 76	275,600 58	97,357 97	2,146,023 37

1

State and fund.	Amount of stock.	By whom invested.	Date of treaty.	Date of purchase.	Period for which interest is due.		Amount of interest.	Amount due from each State.	Remarks.
					From—	To—			
<i>Arkansas 6s.</i> Chickasaw national fund.	\$90,000 00	.....	May 24, 1834	Feb. 27, 1839	Jan.	1, 1842 July 1, 1876	\$186,300	\$186,300	The bonds of the State of Arkansas, originally purchased February 27, 1859, were funded in 1873, in accordance with the provisions of an act approved December 13, 1872 (17 Stat., 397), in new bonds, and the interest then due from said State was also funded by the issue of bonds; but as the State is in default for interest on the said new bonds, the full amount of interest due on the original investment is shown in this statement.
<i>Florida 7s.</i> Cherokee national fund...	{ 1,000 00 1,000 00 11,000 00	{ Secretary of the Interior.	Dec. 29, 1835 Dec. 29, 1835 Dec. 29, 1835	Oct. 4, 1857 Oct. 4, 1857 Oct. 4, 1857	Jan.	1, 1861 July 1, 1876 1, 1861 July 1, 1876 1, 1862 July 1, 1876	1,085 1,050 11,165	.....	
Cherokee school fund...	{ 1,000 00 6,000 00	do	Dec. 29, 1835 Dec. 29, 1835	Oct. 4, 1857 Oct. 4, 1857	Jan.	1, 1861 July 1, 1876 1, 1862 July 1, 1876	1,085 6,090	.....	
Delaware general fund...	{ 53,000 00 92,000 00	do	May 6, 1854 May 17, 1854	Oct. 4, 1857 Oct. 4, 1857	Jan.	1, 1862 July 1, 1876 1, 1862 July 1, 1876	53,795 22,330	.....	
Iowas	{ 16,000 00 21,000 00	do	May 30, 1854 May 30, 1854	Oct. 4, 1857 Oct. 4, 1857	Jan.	1, 1862 July 1, 1876 1, 1862 July 1, 1876	16,240 20,580	.....	
Kaskaskias, Peorias, &c.	{ 17,000 00 24,000 00	do	May 17, 1854 May 30, 1854	Dec. 20, 1861 Dec. 20, 1861	.....	.....	.....	133,420	
<i>Kansas 7s.</i> Iowas	17,000 00	do	May 17, 1854	Dec. 20, 1861	.....	.....	.....	.....	{ Redeemed September 1, 1876, and invested in five per cent, United States funded loan of 1881.
Kaskaskias, Peorias, &c.	24,000 00	do	May 30, 1854	Dec. 20, 1861	.....	.....	.....	.....	
<i>Louisiana 6s.</i> Cherokee national fund...	11,000 00	do	Dec. 29, 1835	Oct. 4, 1857	Nov.	1, 1873 July 1, 1876	1,760	.....	
Cherokee school fund...	2,000 00	do	Dec. 29, 1835	Oct. 4, 1857	Nov.	1, 1873 July 1, 1876	320	.....	
Iowas	9,000 00	do	May 17, 1854	Oct. 4, 1857	Nov.	1, 1873 July 1, 1876	1,440	.....	
Kaskaskias, Peorias, &c.	{ 5,000 00 10,000 00	do	May 30, 1854 May 30, 1854	Oct. 4, 1857 Oct. 4, 1857	Nov. Oct.	1, 1873 July 1, 1876 1, 1873 July 1, 1876	800 1,650	.....	
<i>North Carolina 6s.</i> Cherokee national fund...	{ 21,000 00 7,000 00	do	Dec. 29, 1835 Dec. 29, 1835	Oct. 4, 1857 Oct. 4, 1857	Apr. Oct.	1, 1861 Apr. 1, 1868 1, 1868 July 1, 1876	8,820 9,756	.....	
		do			July	1, 1873 July 1, 1876	1,260	.....	

Statement showing investments in securities other than stocks of the United States since September 11, 1841, &c.—Continued.

State and fund.	Amount of stock.	By whom invested.	Date of treaty.	Date of purchase.	Period for which interest is due.		Amount of interest.	Amount due from each State.	Remarks.
					From—	To—			
Cherokee school fund	\$13,000 00	Sec. of the Interior.	Dec. 29, 1835	Oct. 4, 1857	July 1, 1873	July 1, 1876	\$2,340	.....	
Delaware general fund	{ 80,000 00	do	May 6, 1854	Oct. 4, 1857	{ Oct. 1, 1873	July 1, 1876	13,200	.....	
	{ 7,000 00	do	May 6, 1854	Oct. 4, 1857	{ Apr. 1, 1861	Apr. 1, 1868	2,940	.....	
Iowas.....	{ 17,000 00	do	May 17, 1854	Oct. 4, 1857	{ Oct. 1, 1868	July 1, 1876	1,470	.....	
	{ 4,000 00	do	May 17, 1854	Oct. 4, 1857	{ Oct. 1, 1872	July 1, 1876	1,575	.....	
Kaskaskias, Peorias, &c..	{ 8,000 00	do	May 30, 1854	Oct. 4, 1857	{ Oct. 1, 1860	Apr. 1, 1868	7,650	.....	
	{ 2,000 00	do	May 30, 1854	Oct. 4, 1857	{ Oct. 1, 1868	July 1, 1876	7,905	.....	
Kaskaskias, Peorias, &c..	{ 15,000 00	do	May 30, 1854	Oct. 4, 1857	{ Oct. 1, 1860	Jan. 1, 1861	60	.....	
	{ 18,000 00	do	May 30, 1854	Oct. 4, 1857	{ July 1, 1873	July 1, 1876	720	.....	
Cherokee national fund	118,000 00	do	Dec. 29, 1835	Feb. 4, 1858	{ Apr. 1, 1873	July 1, 1876	1,520	.....	
	1,000 00	do	Dec. 29, 1835	Feb. 4, 1858	{ July 1, 1873	July 1, 1876	360	.....	
Iowas.....	3,000 00	do	May 17, 1854	Feb. 4, 1858	{ Oct. 1, 1873	July 1, 1876	2,475	.....	
	3,000 00	do	May 30, 1854	Feb. 4, 1858	{ Apr. 1, 1874	July 1, 1876	2,430	.....	
Tennessee.									
Cherokee national fund, 5s.	125,000 00	Secretary of War .	Dec. 29, 1835	July 21, 1836	{ July 1, 1860	July 1, 1867	49,560	.....	
Chickasaw national fund, 6 per cent.	{ 104,000 00	Sec. of Treasury....	May 24, 1834	Oct. —, 1851	{ July 1, 1871	July 1, 1876	35,400	.....	
	{ 512,000 00	do	May 24, 1834	Oct. 1, 1851	{ July 1, 1860	July 1, 1867	300	.....	
Chickasaw national fund, 5½ per cent.	66,666 66	do	May 24, 1834	Mar. 3, 1837	{ July 1, 1871	July 1, 1876	1,260	.....	
Creek orphans, 2 per cent.	20,000 00	Sec. of the Interior.	May 24, 1832	Apr. 13, 1853	{ Jan. 1, 1861	Jan. 1, 1866	900	.....	
Menomonees, 5s.....	{ 4,000 00	do	Sept. 3, 1836	Apr. 13, 1853	{ Jan. 1, 1861	Jan. 1, 1866	1,000	.....	
	{ 15,000 00	do	Sept. 3, 1836	Apr. 13, 1853	{ Jan. 1, 1869	July 1, 1876	1,500	.....	
								90,000	Received in exchange for Alabama 5 per cent. stocks purchased in 1836 and 1837.

Ottawas and Chippewas, 5 per cent.	1,000 00	do	Mar. 28, 1836	Apr. 13, 1853	{ Jan. 1, 1861 Jan. 1, 1868	Jan. July	1, 1866 1, 1876	300 510	 396, 045
Virginia 6s.									
Cherokee national fund ..	90,000 00	do	Dec. 29, 1835	July 9, 1860	{ Jan. 1, 1861 Jan. 1, 1867 Jan. 1, 1870	Jan. Jan. July	1, 1867 1, 1870 1, 1876	32,400 *5,400 35,100	..... ..... .....
Choctaw general fund ...	450,000 00	do	Jan. 17, 1837	July 9, 1860	{ Jan. 1, 1861 Jan. 1, 1867 Jan. 1, 1870	Jan. Jan. July	1, 1867 1, 1870 1, 1876	162,000 *27,000 175,500	..... ..... .....
Creek orphans	41,800 00	do	May 24, 1832	July 9, 1860	{ Jan. 1, 1861 Jan. 1, 1867 Jan. 1, 1870	Jan. Jan. July	1, 1867 1, 1870 1, 1876	15,048 *2,508 16,302	..... ..... .....
Cherokee school fund	3,500 00	do	May 24, 1832	July 1, 1851	.....	.....	.....	.....	.....
	1,000 00	do	Dec. 29, 1835	July 9, 1860	Jan. 1, 1861	July	1, 1876	930	.....
Creek orphans	9,000 00	do	May 24, 1832	July 9, 1860	Jan. 1, 1861	July	1, 1876	8,370	.....
Ottawas and Chippewas..	13,000 00	do	Mar. 28, 1836	July 9, 1860	Jan. 1, 1861	July	1, 1876	2,790	.....
Chickasaw national fund	100,000 00	Sec. of Treasury ..	May 24, 1834	Oct. 1, 1851	.....	.....	.....	.....	.....
Missouri	370,000 00	Sec. of the Interior	.....	—, 1857	Jan. 1, 1861	July	1, 1876	344,100	483,348
North Carolina	357,000 00	do	.....	—, 1857	Jan. 1, 1861	July	1, 1876	332,010	344,100
Tennessee	143,000 00	do	.....	—, 1857	Jan. 1, 1861	July	1, 1876	132,990	332,010
Total stocks	3,033,566 66	Total interest..	.....	.....	.....	.....	.....	.....	132,990
									2,168,673

{ \$100,000 Alabama 5 per cent. stocks, purchased March 7, 1837, were exchanged in July, 1851, for \$90,000 in stocks of the James River and Kanawha Canal Company; these latter were exchanged, July 9, 1860, for a like amount of stocks of the State of Virginia.

{ \$500,000 Alabama 5 per cent. stocks, purchased January 1, 1841, were exchanged in July, 1851, for \$450,000 in stocks of the James River and Kanawha Canal Company; these latter were exchanged, July 9, 1860, for a like amount of stocks of the State of Virginia.

{ \$46,444 Alabama 5 per cent. stocks, purchased November 1, 1836, were exchanged in July, 1851, for \$41,800 in stocks of the James River and Kanawha Canal Company; these latter were exchanged, July 9, 1860, for a like amount of stocks of the State of Virginia.

Received in exchange for Alabama 5 per cent. stocks, purchased in 1836. Interest paid regularly.

Received in exchange at same time and in same manner as the \$90,000 above noted, belonging to the Cherokee national fund.

Received in exchange at same time and in same manner as the \$41,800 above noted, belonging to the Creek orphans.

Received in exchange for Alabama 5 per cent. stocks, purchased in 1836 and 1837.

} Bonds abstracted from the Department between July 1, 1860, and January 1, 1861.

* 2 per centum—the State having paid 4 per centum per annum from January 1, 1867, to January 1, 1870.

† \$3,000 Michigan stocks, purchased September 29, 1838, were exchanged in July, 1851, for same amount of James River and Kanawha Canal Company stocks; these latter were exchanged, July 9, 1860, for a like amount of stock of the State of Virginia.

Statement showing the interest on non-paying State stocks, appropriated by Congress, from Janu

State stocks.	Per cent.	Amount of stock.	Appropriations made by Congress for interest on non-paying State stocks.					
			Act of March 3, 1865, vol. 13, p. 559.	Act of July 26, 1866, vol. 14, p. 279.	Act of March 2, 1867, vol. 14, p. 514.	Act of July 27, 1868, vol. 15, p. 222.	Act of April 10, 1869, vol. 16, p. 38.	Act of July 15, 1870, vol. 16, p. 358.
ARKANSAS.								
Chickasaw national fund	6	\$90,000 00	.....	.....	\$10,800 00	\$5,400 00	.....	\$5,400 00
Do	6	78,000 00	.....	.....	.....	.....	.....	.....
Total		168,000 00	.....	.....	10,800 00	5,400 00	.....	5,400 00
FLORIDA.								
Cherokee national fund	7	1,000 00	\$315 00	\$70 00	70 00	70 00	\$70 00	70 00
Do	7	1,000 00	280 00	70 00	70 00	70 00	70 00	70 00
Do	7	5,000 00	1,225 00	350 00	350 00	350 00	350 00	350 00
Cherokee school fund	7	1,000 00	315 00	70 00	70 00	70 00	70 00	70 00
Do	7	6,000 00	1,470 00	420 00	420 00	420 00	420 00	420 00
Delaware general fund	7	53,000 00	12,985 00	3,710 00	3,710 00	3,710 00	3,710 00	3,710 00
Iowas	7	22,000 00	5,390 00	1,540 00	1,540 00	1,540 00	1,540 00	1,540 00
Kaskaskias, Peorias, &c.	7	16,000 00	3,920 00	1,120 00	1,120 00	1,120 00	1,120 00	1,120 00
Do	7	21,000 00	4,410 00	1,470 00	1,470 00	1,470 00	1,470 00	1,470 00
Delaware general fund	7	6,000 00	1,470 00	420 00	420 00	420 00	420 00	420 00
Cherokee national fund	7	.....	.....	.....	.....	.....	.....	.....
Total		132,000 00	31,780 00	9,240 00	9,240 00	9,240 00	9,240 00	9,240 00
GEORGIA.								
Cherokee national fund	6	{ 1,500 00	405 00	90 00	90 00	90 00	.....	.....
Do .....		{ .....	.....	.....	.....	.....	45 00	.....
Delaware general fund	6	{ 2,000 00	540 00	120 00	120 00	120 00	.....	.....
Do .....		{ .....	.....	.....	.....	.....	60 00	.....
Total		3,500 00	945 00	210 00	210 00	210 00	105 00	.....
MISSOURI.								
Cherokee school fund	5½	10,000 00	2,475 00	550 00	550 00	.....	.....	.....
Creek orphans	5½	28,000 00	6,930 00	1,540 00	1,540 00	.....	.....	.....
Kansas schools	5½	18,000 00	4,455 00	990 00	990 00	.....	.....	.....
Senecas and Shawnees	5½	7,000 00	1,732 50	385 00	385 00	.....	.....	.....
Total		63,000 00	15,592 50	3,465 00	3,465 00	.....	.....	.....
MISSOURI.								
Cherokee school fund	6	5,000 00	1,350 00	300 00	300 00	.....	.....	.....
Chippewa and Christian	6	5,000 00	1,350 00	300 00	300 00	.....	.....	.....
Choctaw school fund	6	19,000 00	5,130 00	1,140 00	1,140 00	.....	.....	.....
Choctaw general fund	6	2,000 00	540 00	120 00	120 00	.....	.....	.....
Creek orphans	6	28,000 00	7,500 00	1,740 00	1,740 00	.....	.....	.....
Kansas schools	6	2,000 00	540 00	120 00	120 00	.....	.....	.....
Menomonees	6	9,000 00	2,430 00	540 00	540 00	.....	.....	.....
Osage schools	6	7,000 00	1,890 00	420 00	420 00	.....	.....	.....
Ottawas and Chippewas	6	10,000 00	2,700 00	600 00	600 00	.....	.....	.....
Senecas and Shawnees	6	3,000 00	810 00	180 00	180 00	.....	.....	.....
Pottawatomies, education....	6	{ 1,000 00	270 00	60 00	60 00	.....	.....	.....
Do		{ 2,000 00	540 00	120 00	120 00	.....	.....	.....
Do		{ 1,000 00	270 00	60 00	60 00	.....	.....	.....
Do		{ 1,000 00	270 00	60 00	60 00	.....	.....	.....
Total		95,000 00	25,590 00	5,760 00	5,760 00	.....	.....	.....
SOUTH CAROLINA.								
Cherokee national fund	6	117,000 00	35,100 00	7,020 00	7,020 00	7,020 00	7,020 00	.....
Cherokee school-fund	6	1,000 00	300 00	60 00	60 00	60 00	60 00	.....
Iowas	6	3,000 00	900 00	180 00	180 00	180 00	180 00	.....
Kaskaskias, Peorias, &c.	6	3,000 00	900 00	180 00	180 00	180 00	180 00	.....
Delaware general fund	6	{ 1,000 00	300 00	60 00	60 00	60 00	60 00	.....
Cherokee national fund	6	{ .....	.....	.....	.....	.....	.....	.....
Total		125,000 00	37,500 00	7,500 00	7,500 00	7,500 00	7,500 00	.....

a A double appropriation was made, per act of June 22, 1874, to the extent of \$7,740

ary 1, 1861, to July 1, 1877, brought on the books of the Indian Office by appropriation warrants.

Appropriations made by Congress for interest on non-paying State stocks.

Act of March 3, 1871, vol. 16, p. 569.	Act of May 29, 1872, vol. 17, p. 188.	Act of February 14, 1873, vol. 17, p. 462.	Act of June 22, 1874, vol. 18, p. 174.	Act of March 3, 1875, vol. 18, p. 448.	Act of August 15, 1876, vol. 19, p. 198.	Act of March 3, 1877, vol. 19, p. 293.	Amount.	From—	To—	Years.	Months.
\$5,400 00	\$5,400 00	\$5,400 00	\$5,400 00	\$5,400 00	\$5,400 00	\$5,400 00	\$59,400 00	July 1, 1866	July 1, 1877	11	..
.....	.....	.....	2,340 00	.....	9,360 00	4,680 00	16,380 00	Jan. 1, 1874	July 1, 1877	3	6
5,400 00	5,400 00	5,400 00	7,740 00	5,400 00	14,760 00	10,080 00	75,780 00				
70 00	70 00	70 00	70 00	70 00	70 00	70 00	1,155 00	Jan. 1, 1861	July 1, 1877	16	6
70 00	70 00	70 00	70 00	70 00	70 00	70 00	1,120 00	July 1, 1861	July 1, 1877	16	..
350 00	350 00	350 00	350 00	350 00	350 00	350 00	5,425 00	Jan. 1, 1862	July 1, 1877	15	6
70 00	70 00	70 00	70 00	70 00	70 00	70 00	1,155 00	Jan. 1, 1861	July 1, 1877	16	6
420 00	420 00	420 00	420 00	420 00	420 00	420 00	6,510 00	Jan. 1, 1862	July 1, 1877	15	6
3,710 00	3,710 00	3,710 00	3,710 00	3,710 00	3,710 00	3,710 00	57,505 00	Jan. 1, 1862	July 1, 1877	15	6
1,540 00	1,540 00	1,540 00	1,540 00	1,540 00	1,540 00	1,540 00	23,870 00	Jan. 1, 1862	July 1, 1877	15	6
1,120 00	1,120 00	1,120 00	1,120 00	1,120 00	1,120 00	1,120 00	17,360 00	Jan. 1, 1862	July 1, 1877	15	6
1,470 00	1,470 00	1,470 00	1,470 00	1,470 00	1,470 00	1,470 00	22,050 00	July 1, 1862	July 1, 1877	15	..
420 00	420 00	420 00	420 00	420 00	420 00	420 00	3,570 00	Jan. 1, 1862	July 1, 1870	8	6
9,240 00	9,240 00	9,240 00	9,240 00	9,240 00	9,240 00	9,240 00	2,940 00	July 1, 1870	July 1, 1877	7	..
							142,660 00				
							675 00	Jan. 1, 1861	July 1, 1868	7	6
							45 00	Jan. 1, 1869	July 1, 1869	..	6
							900 00	Jan. 1, 1861	July 1, 1868	7	6
							60 00	Jan. 1, 1869	July 1, 1869	..	6
							1,680 00				
							3,575 00	Jan. 1, 1861	July 1, 1867	6	6
							10,010 00	Jan. 1, 1861	July 1, 1867	6	6
							6,435 00	Jan. 1, 1861	July 1, 1867	6	6
							2,502 50	Jan. 1, 1861	July 1, 1867	6	6
							22,522 50				
							1,950 00	Jan. 1, 1861	July 1, 1867	6	6
							1,950 00	Jan. 1, 1861	July 1, 1867	6	6
							7,410 00	Jan. 1, 1861	July 1, 1867	6	6
							780 00	Jan. 1, 1861	July 1, 1867	6	6
							10,980 00	Jan. 1, 1861	July 1, 1867	6	6
							780 00	Jan. 1, 1861	July 1, 1867	6	6
							3,510 00	Jan. 1, 1861	July 1, 1867	6	6
							2,730 00	Jan. 1, 1861	July 1, 1867	6	6
							3,900 00	Jan. 1, 1861	July 1, 1867	6	6
							1,170 00	Jan. 1, 1861	July 1, 1867	6	6
							390 00	Jan. 1, 1861	July 1, 1867	6	6
							780 00	Jan. 1, 1861	July 1, 1867	6	6
							390 00	Jan. 1, 1861	July 1, 1867	6	6
							390 00	Jan. 1, 1861	July 1, 1867	6	6
							37,110 00				
		14,040 00	7,020 00	7,020 00	7,020 00	7,020 00	105,300 00	{ July 1, 1860	July 1, 1869	9	..
								{ July 1, 1871	July 1, 1877	6	..
		120 00	60 00	60 00	60 00	60 00	900 00	{ July 1, 1860	July 1, 1869	9	..
								{ July 1, 1871	July 1, 1877	6	..
		360 00	180 00	180 00	180 00	180 00	2,700 00	{ July 1, 1860	July 1, 1869	9	..
								{ July 1, 1871	July 1, 1877	6	..
		360 00	180 00	180 00	180 00	180 00	2,700 00	{ July 1, 1860	July 1, 1869	9	..
								{ July 1, 1871	July 1, 1877	6	..
		120 00	60 00	60 00	60 00	60 00	540 00	July 1, 1860	July 1, 1869	9	..
							360 00	July 1, 1871	July 1, 1877	6	..
		15,000 00	7,500 00	7,500 00	7,500 00	7,500 00	112,500 00				

on Arkansas bonds, which amount was reimbursed to the United States April 29, 1875.

Statement showing the interest on non-paying State stocks,

State stocks.	Per cent.	Amount of stock.	Appropriations made by Congress for interest on non-paying State stocks.					
			Act of March 3, 1865, vol. 13, p. 559.	Act of July 26, 1866, vol. 14, p. 279.	Act of March 2, 1867, vol. 14, p. 514.	Act of July 27, 1868, vol. 15, p. 222.	Act of April 10, 1869, vol. 16, p. 38.	Act of July 15, 1870, vol. 16, p. 358.
NORTH CAROLINA.								
Cherokee national fund	6	\$7,000 00	\$1,890 00	\$420 00	\$420 00	\$420 00	\$420 00	\$420 00
Cherokee school fund	6	13,000 00	3,510 00	780 00	780 00	780 00	780 00	780 00
Iowas	6	4,000 00	1,080 00	240 00	240 00	240 00	240 00	240 00
Kaskaskias, Peorias, &c.	6	2,000 00	540 00	120 00	120 00	120 00	120 00	120 00
Delaware general fund	6	80,000 00	22,800 00	4,800 00	4,800 00	4,800 00	4,800 00	4,800 00
Do	6	20,000 00	5,100 00	1,200 00	1,200 00	1,200 00	1,200 00	1,200 00
Do	6	7,000 00						
Iowas	6	17,000 00	4,845 00	1,020 00	1,020 00	1,020 00	1,020 00	1,020 00
Kaskaskias, Peorias, &c.	6	41,000 00	11,685 00	2,460 00	2,460 00	2,460 00	2,460 00	2,460 00
Delaware general fund	6	21,000 00	5,355 00	1,260 00	1,260 00	1,260 00	1,260 00	1,260 00
Cherokee national fund	6							
Total		212,000 00	56,805 00	12,300 00	12,300 00	12,300 00	12,300 00	12,300 00
TENNESSEE.								
Cherokee national fund	5	125,000 00	28,125 00	6,250 00	6,250 00	3,125 00		6,250 00
Creek orphans	5	1,000 00	225 00	50 00	50 00	25 00		50 00
Do	5	15,000 00	3,375 00	750 00	750 00	375 00		750 00
Do	5	4,000 00	900 00	200 00	200 00	100 00		200 00
Menomonees	5	19,000 00	4,275 00	950 00	950 00	475 00		950 00
Ottawas and Chippewas	5	1,000 00	225 00	50 00	50 00	25 00		50 00
Total		165,000 00	37,125 00	8,250 00	8,250 00	4,125 00		8,250 00
TENNESSEE.								
Chickasaw national fund	6	104,000 00			12,480 00	6,240 00		6,240 00
TENNESSEE.								
Chickasaw national fund	5½	66,666 66⅔			7,000 00	3,500 00		3,500 00
LOUISIANA.								
Cherokee national fund	6	7,000 00	1,960 00	420 00	420 00	420 00	420 00	420 00
Cherokee school fund	6	2,000 00	560 00	120 00	120 00	120 00	120 00	120 00
Iowas	6	9,000 00	2,520 00	540 00	540 00	540 00	540 00	540 00
Kaskaskias, Peorias, &c.	6	5,000 00	1,400 00	300 00	300 00	300 00	300 00	300 00
Do	6	10,000 00	2,850 00	600 00	600 00	600 00	600 00	600 00
Delaware general fund	6	4,000 00	1,120 00	240 00	240 00	240 00	240 00	240 00
Cherokee national fund	6							
Total		37,000 00	10,410 00	2,220 00	2,220 00	2,220 00	2,220 00	2,220 00
VIRGINIA.								
Cherokee national fund	6	90,000 00	24,300 00	5,400 00	5,400 00	a3,600 00	b3 857 14	c6,942 86
Choctaw general fund	6	450,000 00	121,500 00	27,000 00	27,000 00	a18,000 00	b19,285 71	c34,714 25
Creek orphans	6	41,800 00	11,286 00	2,508 00	2,508 00	a1,672 00	b1,791 43	c3,224 57
Total		581,800 00	157,086 00	34,908 00	34,908 00	23,272 00	24,934 28	44,881 72

a 4 per cent.

b 5-7th of 6 per cent.

c Deficiency of 2-7th of 6 per cent. included.

appropriated by Congress, &c.—Continued.

Appropriations made by Congress for interest on non-paying State stocks.

Act of March 3, 1871, vol. 16, p. 569.	Act of May 29, 1872, vol. 17, p. 188.	Act of February 14, 1873, vol. 17, p. 462.	Act of June 22, 1874, vol. 18, p. 174.	Act of March 3, 1875, vol. 18, p. 448.	Act of August 15, 1876, vol. 19, p. 198.	Act of March 3, 1877, vol. 19, p. 293.	Amount.	From—	To—	Years.	Months.
\$420 00	\$420 00	\$420 00	\$420 00	\$420 00	\$420 00	\$420 00	\$6,930 00	Jan. 1, 1861	July 1, 1877	16	6
780 00	780 00	780 00	780 00	780 00	780 00	780 00	12,870 00	Jan. 1, 1861	July 1, 1877	16	6
240 00	240 00	240 00	240 00	240 00	240 00	240 00	3,960 00	Jan. 1, 1861	July 1, 1877	16	6
120 00	120 00	120 00	120 00	120 00	120 00	120 00	1,980 00	Jan. 1, 1861	July 1, 1877	16	6
4,800 00	4,800 00	4,800 00	4,800 00	4,800 00	4,800 00	4,800 00	80,400 00	Oct. 1, 1860	July 1, 1877	16	9
1,200 00	1,200 00						13,500 00	Apr. 1, 1861	July 1, 1872	11	3
		420 00	420 00	420 00	420 00	420 00	2,100 00	July 1, 1872	July 1, 1877	5	..
1,020 00	1,020 00	1,020 00	1,020 00	1,020 00	1,020 00	1,020 00	17,085 00	Oct. 1, 1860	July 1, 1877	16	9
2,460 00	2,460 00	2,460 00	2,460 00	2,460 00	2,460 00	2,460 00	41,205 00	Oct. 1, 1860	July 1, 1877	16	9
							11,655 00	Apr. 1, 1861	July 1, 1870	9	3
1,260 00	1,260 00	1,260 00	1,260 00	1,260 00	1,260 00	1,260 00	8,820 00	July 1, 1870	July 1, 1877	7	..
12,300 00	12,300 00	11,520 00	11,520 00	11,520 00	11,520 00	11,520 00	200,505 00				
							40,625 00	Jan. 1, 1861	July 1, 1867	6	6
							3,125 00	Jan. 1, 1868	July 1, 1868	..	6
6,250 00	6,250 00	6,250 00	6,250 00	6,250 00	6,250 00	6,250 00	50,000 00	July 1, 1869	July 1, 1877	8	..
							325 00	Jan. 1, 1861	July 1, 1867	6	6
							25 00	Jan. 1, 1868	July 1, 1868	..	6
50 00	50 00	50 00	50 00	50 00	50 00	50 00	400 00	July 1, 1869	July 1, 1877	8	..
							4,875 00	Jan. 1, 1861	July 1, 1867	6	6
							375 00	Jan. 1, 1868	July 1, 1868	..	6
750 00	750 00	750 00	750 00	750 00	750 00	750 00	6,000 60	July 1, 1869	July 1, 1877	8	..
							1,300 00	Jan. 1, 1861	July 1, 1867	6	6
							100 00	Jan. 1, 1868	July 1, 1868	..	6
200 00	200 00	200 00	200 00	200 00	200 00	200 00	1,600 00	July 1, 1869	July 1, 1877	8	..
							6,175 00	Jan. 1, 1861	July 1, 1867	6	6
							475 00	Jan. 1, 1868	July 1, 1868	..	6
950 00	950 00	950 00	950 00	950 00	950 00	950 00	7,600 00	July 1, 1869	July 1, 1877	8	..
							325 00	Jan. 1, 1861	July 1, 1867	6	6
							25 00	Jan. 1, 1868	July 1, 1868	..	6
50 00	50 00	50 00	50 00	50 00	50 00	50 00	400 00	July 1, 1869	July 1, 1877	8	..
8,250 00	8,250 00	8,250 00	8,250 00	8,250 00	8,250 00	8,250 00	123,750 00				
6,240 00	6,240 00	6,240 00	6,240 00	6,240 00	6,240 00	6,240 00	68,640 00	July 1, 1866	July 1, 1877	11	..
3,500 00	3,500 00	3,500 00	3,500 00	3,500 00	3,500 00	3,500 00	38,500 00	July 1, 1866	July 1, 1877	11	..
420 00				630 00	420 00	420 00	{ 4,480 00	Nov. 1, 1860	July 1, 1871	10	8
							{ 1,470 00	Jan. 1, 1874	July 1, 1877	3	6
120 00				180 00	120 00	120 00	{ 1,280 00	Nov. 1, 1860	July 1, 1871	10	8
							{ 420 00	Jan. 1, 1874	July 1, 1877	3	6
540 00				810 00	540 00	540 00	{ 5,760 00	Nov. 1, 1860	July 1, 1871	10	8
							{ 1,890 00	Jan. 1, 1874	July 1, 1877	3	6
300 00				450 00	300 00	300 00	{ 3,200 00	Nov. 1, 1860	July 1, 1871	10	8
							{ 1,050 00	Jan. 1, 1874	July 1, 1877	3	6
600 00				900 00	600 00	600 00	{ 6,450 00	Oct. 1, 1860	July 1, 1871	10	9
							{ 2,100 00	Jan. 1, 1874	July 1, 1877	3	6
							{ 2,320 00	Nov. 1, 1860	July 1, 1870	9	8
240 00				360 00	240 00	240 00	{ 240 00	July 1, 1870	July 1, 1871	1	..
							{ 840 00	Jan. 1, 1874	July 1, 1877	3	6
2,220 00				3,330 00	2,220 00	2,220 00	31,500 00				
5,400 00	5,400 00	5,400 00	5,400 00	5,400 00	5,400 00	5,400 00	87,300 00	Jan. 1, 1861	July 1, 1877	16	6
27,000 00	27,000 00	27,000 00	27,000 00	27,000 00	27,000 00	27,000 00	436,500 00	Jan. 1, 1861	July 1, 1877	16	6
2,508 00	2,508 00	2,508 00	2,508 00	2,508 00	2,508 00	2,508 00	40,546 00	Jan. 1, 1861	July 1, 1877	16	6
34,908 00	34,908 00	34,908 00	34,908 00	34,908 00	34,908 00	34,908 00	564,346 00				

Statement showing the interest on non-paying State stocks,

State stocks.	Per cent.	Amount of stock.	Appropriations made by Congress for interest on non-paying State stocks.					
			Act of March 3, 1865, vol. 13, p. 559.	Act of July 26, 1866, vol. 14, p. 279.	Act of March 2, 1867, vol. 14, p. 514.	Act of July 27, 1868, vol. 15, p. 222.	Act of April 10, 1869, vol. 16, p. 38.	Act of July 15, 1870, vol. 16, p. 358.
VIRGINIA—Continued.								
<i>Virginia (city of Wheeling).</i>								
Cherokee school fund.....	6	\$123,000 00	\$33,216 00	\$7,380 00	\$7,380 00	\$7,380 00	a\$5,271 43	.....
Cherokee orphans	6	45,000 00	12,150 00	2,700 00	2,700 00	2,700 00	a1,928 57	.....
Total.....	...	168,000 00	45,360 00	10,080 00	10,080 00	10,080 00	7,200 00	.....
<i>Virginia (Richmond and Danville Railroad).</i>								
Creek orphans	6	3,500 00	945 00	210 00	210 00	210 00	a150 00	.....
<i>Virginia (Chesapeake and Ohio Canal Company).</i>								
Cherokee school fund.....	6	1,000 00	270 00	60 00	60 00	60 00	a42 86	b\$77 14
Creek orphans	6	9,000 00	2,430 00	540 00	540 00	540 00	a385 71	b694 29
Ottawas and Chippewas.....	6	3,000 00	810 00	180 00	180 00	180 00	a128 57	b231 43
Total.....	...	13,000 00	3,510 00	780 00	780 00	780 00	557 14	1,002 86
<i>Virginia (Chesapeake and Ohio Canal Company).</i>								
Cherokee school fund	6	{ 2,750 00 2,750 00 2,750 00 2,750 00 }	2,970 00	660 00	660 00	660 00	a471 43	b848 57
Creek orphans	6	{ 4,875 00 4,875 00 4,875 00 4,875 00 }	5,265 00	1,170 00	1,170 00	1,170 00	a835 72	b1,504 28
Total.....	...	30,500 00	8,235 00	1,830 00	1,830 00	1,830 00	1,307 15	2,352 85
INDIANA.								
Pottawatomies, education....	5	{ 67,000 00 1,000 00 }	15,075 00	3,350 00	3,350 00	3,350 00	.....	3,350 00
Chickasaw incompetents	5	{ 2,000 00 ..... ..... }	.....	.....	.....	.....	.....	100 00
Total.....	...	70,000 00	15,550 00	3,400 00	3,400 00	3,400 00	.....	3,450 00

a 5-7ths of 6 per cent.

b Deficiency of 2-7ths of 6 per cent. included.

appropriated by Congress, &c.—Continued.

Appropriations made by Congress for interest on non-paying State stocks.

Act of March 3, 1871, vol. 16, p. 569.	Act of May 29, 1872, vol. 17, p. 188.	Act of February 14, 1873, vol. 17, p. 462.	Act of June 22, 1874, vol. 18, p. 174.	Act of March 3, 1875, vol. 18, p. 448.	Act of August 15, 1876, vol. 19, p. 198.	Act of March 3, 1877, vol. 19, p. 293.	Amount.	From—	To—	Years.	Months.
.....	.....	.....	.....	.....	.....	.....	\$60,621 43	Jan. 1, 1861	July 1, 1869	8	6
.....	.....	.....	.....	.....	.....	.....	22,178 57	Jan. 1, 1861	July 1, 1869	8	6
.....	.....	.....	.....	.....	.....	.....	82,800 00				
.....	.....	.....	.....	.....	.....	.....	1,725 00	Jan. 1, 1861	July 1, 1869	8	6
\$60 00	\$60 00	\$60 00	\$60 00	\$60 00	\$60 00	\$60 00	990 00	Jan. 1, 1861	July 1, 1877	16	6
540 00	540 00	540 00	540 00	540 00	540 00	540 00	8,910 00	Jan. 1, 1861	July 1, 1877	16	6
180 00	180 00	180 00	180 00	180 00	180 00	180 00	2,970 00	Jan. 1, 1861	July 1, 1877	16	6
780 00	780 00	780 00	780 00	780 00	780 00	780 00	12,870 00				
660 00	.....	.....	.....	.....	.....	.....	6,930 00	Jan. 1, 1861	July 1, 1871	10	6
1,170 00	.....	.....	.....	.....	.....	.....	12,285 00	Jan. 1, 1861	July 1, 1871	10	6
1,830 00	.....	.....	.....	.....	.....	.....	19,215 00				
6,700 00	3,350 00	3,350 00	3,350 00	.....	.....	.....	45,225 00	Jan. 1, 1861	July 1, 1874	13	6
.....	.....	.....	.....	.....	.....	.....	625 00	Jan. 1, 1856	July 1, 1868	12	6
.....	.....	.....	.....	.....	.....	.....	c18,853 20	Jan. 1, 1855	Jan. 1, 1861	6	..
200 00	100 00	100 00	100 00	.....	.....	.....	600 00	July 1, 1868	July 1, 1874	6	..
.....	.....	.....	.....	.....	.....	.....	c550 00	July 1, 1855	Jan. 1, 1861	5	6
6,900 00	3,450 00	3,450 00	3,450 00	.....	.....	.....	65,853 20				

c Congress appropriated on Indiana stocks for the benefit of the Pottawatomies, education, and Chickasaw incompetent funds, prior to March 3, 1865, as follows: April 28, 1859, \$12,403.20, and March 2, 1861, \$7,000, amounting to \$19,403.20; of this amount \$18,853.20 was carried to the credit of Pottawatomies, education, and \$550 to the Chickasaw incompetents.

Statement showing the interest on non-paying State stocks,

RECAPIT

State stocks.	Per cent.	Amount of stock.	Appropriations made by Congress for interest on non-paying State stocks.				
			Act of March 3, 1865, vol. 13, p. 559.	Act of July 26, 1866, vol. 14, p. 279.	Act of March 2, 1867, vol. 14, p. 514.	Act of July 27, 1868, vol. 15, p. 922.	Act of April 10, 1869, vol. 16, p. 38.
Arkansas	6	\$90,000 00	.....	.....	\$10,800 00	\$5,400 00	.....
Arkansas	6	78,000 00	.....	.....	.....	.....	.....
Florida	7	132,000 00	\$31,780 00	\$9,240 00	9,240 00	9,240 00	\$9,240 00
Georgia	6	3,500 00	945 00	210 00	210 00	210 00	105 00
Missouri	5½	63,000 00	15,592 50	3,465 00	3,465 00	.....	.....
Missouri	6	95,000 00	25,590 00	5,760 00	5,760 00	.....	.....
South Carolina	6	125,000 00	37,500 00	7,500 00	7,500 00	7,500 00	7,500 00
North Carolina	6	212,000 00	56,805 00	12,300 00	12,300 00	12,300 00	12,300 00
Tennessee	5	165,000 00	37,125 00	8,250 00	8,250 00	4,125 00	.....
Tennessee	6	104,000 00	.....	.....	12,480 00	6,240 00	.....
Tennessee	5½	66,666 66½	.....	.....	7,000 00	3,500 00	.....
Louisiana	6	37,000 00	10,410 00	2,220 00	2,220 00	2,220 00	2,220 00
Virginia	6	581,800 00	157,086 00	34,908 00	34,908 00	23,272 00	24,934 28
Virginia (city of Wheeling) ..	6	168,000 00	45,360 00	10,080 00	10,080 00	10,080 00	7,200 00
Virginia (Richmond and Dan- ville Railroad Company)	6	3,500 00	945 00	210 00	210 00	210 00	150 00
Virginia (Chesapeake and Ohio Canal Company)	6	13,000 00	3,510 00	780 00	780 00	780 00	557 14
Virginia (Chesapeake and Ohio Canal Company)	6	30,500 00	8,235 00	1,830 00	1,830 00	1,830 00	1,307 15
Indiana	5	70,000 00	15,550 00	3,400 00	3,400 00	3,400 00	.....
Total .....		.....	446,433 50	100,153 00	6130,433 00	690,307 00	665,513 57

a A double appropriation was made per act of June 22, 1874, to the extent of \$7,740 on Arkansas bonds which amount was reimbursed to the United States April 29, 1875.

b Amount appropriated on non-paying stocks by act of March 2, 1867, from July 1, 1866, to July 1, 1868 \$220,013 00
Amount accounted for per statement 130,433 00

Difference of 89,580 00

Appropriated on Chickasaw bonds, not embraced in this statement, and made up as follows:

Illinois 6s	\$17,000 00	\$2,040 00
Indiana 5s	141,000 00	14,100 00
Tennessee 6s	512,000 00	61,440 00
Virginia 6s	100,000 00	12,000 00
		89,580 00

appropriated by Congress, &c.—Continued.

ULATION.

Appropriations made by Congress for interest on non-paying State stocks.

Act of July 15, 1870, vol. 16, p. 358.	Act of March 3, 1871, vol. 16, p. 569.	Act of May 29, 1872, vol. 17, p. 188.	Act of February 14, 1873, vol. 17, p. 462.	Act of June 22, 1874, vol. 18, p. 174.	Act of March 3, 1875, vol. 18, p. 448.	Act of August 15, 1876, vol. 19, p. 198.	Act of March 3, 1877, vol. 19, p. 294.	Amount.
\$5,400 00	\$5,400 00	\$5,400 00	\$5,400 00	<i>a</i> \$5,400 00	\$5,400 00	\$5,400 00	\$5,400 00	\$59,400 00
9,240 00	9,240 00	9,240 00	9,240 00	<i>a</i> 2,340 00	9,240 00	9,360 00	4,680 00	16,380 00
				9,240 00	9,240 00	9,240 00	9,240 00	142,660 00
								1,680 00
								22,522 50
								37,110 00
			15,000 00	7,500 00	7,500 00	7,500 00	7,500 00	112,500 00
12,300 00	12,300 00	12,300 00	11,520 00	11,520 00	11,520 00	11,520 00	11,520 00	200,505 00
8,250 00	8,250 00	8,250 00	8,250 00	8,250 00	8,250 00	8,250 00	8,250 00	123,750 00
6,240 00	6,240 00	6,240 00	6,240 00	6,240 00	6,240 00	6,240 00	6,240 00	68,640 00
3,500 00	3,500 00	3,500 00	3,500 00	3,500 00	3,500 00	3,500 00	3,500 00	38,500 00
2,220 00	2,220 00				3,330 00	2,220 00	2,220 00	31,500 00
44,881 72	34,908 00	34,908 00	34,908 00	34,903 00	34,908 00	34,908 00	34,908 00	564,346 00
								82,800 00
								1,725 00
1,002 86	780 00	780 00	780 00	780 00	780 00	780 00	780 00	12,870 00
2,352 85	1,830 00							19,215 00
3,450 00	6,900 00	3,450 00	3,450 00	3,450 00				65,853 20
<i>e</i> 98,837 43	91,568 00	84,068 00	98,288 00	<i>a</i> 93,128 00	90,668 00	98,918 00	94,238 00	1,601,956 70

c Amount appropriated by act of July 27, 1868..... \$160,083 00
Amount accounted for per statement 90,307 00

Difference..... 69,776 00
Deduct amount retained by United States Treasury on account of excess of appropriation..... 24,986 00

Leaving for the year 1869 44,790 00

Appropriated on Chickasaw bonds and not brought on this statement, viz:

Illinois 6s.....	\$17,000 00	\$1,020 00
Indiana 5s.....	141,000 00	7,050 00
Tennessee 6s.....	512,000 00	30,720 00
Virginia 6s.....	100,000 00	6,000 00
		<u>44,790 00</u>

d Amount appropriated by act of April 10, 1869..... \$65,618 57
Amount accounted for on statement 65,513 57

Amount retained by the Treasury, interest on Georgia bonds 105 00

e Amount appropriated by act of July 15, 1870..... \$103,817 43
Amount accounted for per statement 98,837 43

Difference, appropriated on abstracted bonds and not contained in statement 4,980 00

EXECUTIVE ORDERS, ESTABLISHING, ENLARGING, OR REDUCING INDIAN RESERVATIONS, ALSO RESTORING CERTAIN INDIAN RESERVATIONS TO THE PUBLIC DOMAIN, FROM MAY 14, 1855, TO OCTOBER 29, 1878.

ARIZONA.

Camp Verde Reserve.

EXECUTIVE MANSION, *April 23, 1875.*

All orders establishing and setting apart the Camp Verde Indian Reservation in the Territory of Arizona, described as follows: All that portion of country adjoining on the northwest side of and above the military reservation of this (Camp Verde) post, on the Verde River, for a distance of ten miles on both sides of the river to the point where the old wagon-road to New Mexico crosses the Verde, supposed to be a distance up the river of about forty-five miles, are hereby revoked and annulled; and the said described tract of country is hereby restored to the public domain.

U. S. GRANT.

Chiricahua Reserve.

EXECUTIVE MANSION, *December 14, 1872.*

It is hereby ordered that the following tract of country be, and the same is hereby, withheld from sale and set apart as a reservation for certain Apache Indians in the Territory of Arizona, to be known as the "Chiricahua Indian Reservation," viz:

Beginning at Dragoon Springs near Dragoon Pass, and running thence northeasterly along the north base of the Chiricahua Mountains to a point on the summit of Peloncillo Mountains or Stevens Peak range; thence running southeasterly along said range through Stevens Peak to the boundary of New Mexico; thence running south to the boundary of Mexico; thence running westerly along said boundary 55 miles; thence running northerly, following substantially the western base of the Dragoon Mountains, to the place of beginning. * * *

U. S. GRANT.

EXECUTIVE MANSION, *October 30, 1876.*

It is hereby ordered that the order of December 14, 1872, setting apart the following-described lands in the Territory of Arizona as a reservation for certain Apache Indians, viz: Beginning at Dragoon Springs, near Dragoon Pass, and running thence northeasterly along the north base of the Chiricahua Mountains, to a point on the summit of Peloncillo Mountains, or Stevens Peak Range; thence running southeasterly along said range through Stevens Peak to the boundary of New Mexico; thence running south to the boundary of Mexico; thence running westerly along said boundary fifty-six miles; thence running northerly, following substantially the western base of the Dragoon Mountains, to the place of beginning, be, and the same is hereby, canceled, and said lands are restored to the public domain.

U. S. GRANT.

Colorado River Reserve.

EXECUTIVE MANSION, *November 22, 1873.*

It is hereby ordered that the following-described tract of country in the Territory of Arizona be withdrawn from sale and added to the reservation set apart for the Indians of the Colorado River and its tributaries by act of Congress approved March 3, 1865 (U. S. Stat. at Large, vol. 13, p. 559), viz: All that section of bottom-land adjoining the Colorado Reserve, and extending from that reserve on the north side to within six miles of Ehrenberg on the south, bounded on the west by the Colorado River, and east by mountains and mesas.

U. S. GRANT.

EXECUTIVE MANSION, *November 16, 1874.*

It is hereby ordered that a tract of country embraced within the following-described boundaries, which covers and adds to the present reservation as set apart by act of Congress approved March 3, 1865 (Stat. at Large, vol. 13, p. 559), and enlarged by executive order dated November 22, 1873, viz:

Beginning at a point where the La Paz Arroyo enters the Colorado River, four miles above Ehrenberg, thence easterly with said arroyo to a point south of the crest of La Paz Mountain; thence with said crest of mountain in a northerly direction to the top of Black Mountain; thence in a northwesterly direction across the Colorado River to the top of Monument Peak, in the State of California; thence southwesterly in a straight line to the top of Riverside Mountain, California; thence in a southeasterly direction to the point of beginning, be, and the same is hereby, withdrawn from sale and set apart as the reservation for the Indians of the Colorado River and its tributaries.

U. S. GRANT.

EXECUTIVE MANSION, *May 15, 1876.*

Whereas an executive order was issued November 16, 1874, defining the limits of the Colorado River Indian Reservation, which purported to cover, but did not, all the lands theretofore set apart by act of Congress approved March 3, 1865, and executive order dated November 22, 1873; and whereas the order of November 16, 1874, did not revoke the order of November 22, 1873, it is hereby ordered that all lands withdrawn from sale by either of these orders are still set apart for Indian purposes; and the following are hereby declared to be the boundaries of the Colorado River Indian Reservation in Arizona and California, viz:

Beginning at a point where La Paz Arroyo enters the Colorado River, and four miles above Ehrenberg; thence easterly with said arroyo to a point south of the crest of La Paz Mountain; thence with said mountain crest in a northerly direction to the top of Black Mountain; thence in a northwesterly direction over the Colorado River to the top of Monument Peak, in the State of California; thence southwesterly in a straight line to the top of Riverside Mountain, California; thence in a direct line toward the place of beginning to the west bank of the Colorado River; thence down said west bank to a point opposite the place of beginning; thence to the place of beginning.

U. S. GRANT.

Pima and Maricopa or Gila River Reserve.

EXECUTIVE MANSION, *August 31, 1876.*

It is hereby ordered that the following-described lands in the Territory of Arizona, viz: Township 4 south, range 7 east, sections, 14, 15, 22, 23, 24 25, 26, 27, north half of section 35 and section 36; township 5 south, range 7 east, northeast quarter of section 1; township 4 south, range 8 east, southwest quarter of section 19, west half and southeast quarter of section 29, sections 30, 31, 32, and southwest quarter of section 33; township 5 south, range 8 east, southwest quarter of section 3, section 4, north half of section 5, north half of northeast quarter and northwest quarter of section 6, and northwest quarter of section 10, be, and the same are hereby, withdrawn from the public domain and set apart as an addition to the Gila River Reservation in Arizona, for the use and occupancy of the Pima and Maricopa Indians.

U. S. GRANT.

Papago Indian Reserve.

EXECUTIVE MANSION, *July 1, 1874.*

It is hereby ordered that there be withdrawn from sale or entry and set apart for the use of the Papago and such other Indians as it may be desirable to place thereon, the following tract of country around San Xavier del Bac, in Arizona, viz:

Beginning at the northeast corner of section 9, township 15 south, range 13 east; thence west one-half mile to the quarter-section corner; thence south three miles to the section line between sections 21 and 28 of same township; thence west along north boundary of sections 28, 29, and 30, up to the northwest corner of section 30, same township; continuing thence due west nine miles to a point; thence south seven miles to a point; thence east three miles to the southwest corner of section 30, township 16 south, range 12 east; thence east along the south boundary of sections 30, 29, 28, 27, 26, and 25, township 16 south, range 12 east, and sections 30, 29, 28, 27, 26, and 25, township 16 south, range 13 east, to the southeast corner of section 25, same township; thence north along the range line between ranges 13 and 14 east to the northeast corner of section 24, township 15 south, range 13 east; thence west to the northwest corner of section 22, same township; thence north to the place of beginning, to be known as the Papago Indian Reserve.

U. S. GRANT.

White Mountain, Tularosa, Camp Grant, and Verde Reserves.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., November 7, 1871.

SIR: I have the honor to transmit herewith a copy of a communication addressed to this department by the Hon. Vincent Colyer, one of the board of Indian peace commissioners, who recently visited Arizona, wherein he states his views in relation to the Apache Indians, and describes certain tracts of country in Arizona and New Mexico, which, during his recent visit to said Indians, he has selected to be set apart as reservations for their use, as authorized to do by orders issued to him before visiting the Apaches.

I have the honor to recommend, in pursuance of the understanding arrived at in our conversation with the Secretary of War on the 6th instant, that the President issue an order authorizing said tracts of country described in Mr. Colyer's letter to be regarded as reservations for the settlement of Indians until it is otherwise ordered. * * *

I would further suggest that the War Department will, for the present, select some suitable and discreet officer of the Army to act as Indian agent for any of the reservations in Arizona which may be occupied by the Indians, under the order herein contemplated. Such agents will be superseded by persons hereafter appointed by this department, at such times as the President may hereafter deem proper.

Very respectfully, your obedient servant,

C. DELANO, *Secretary.*

The PRESIDENT.

BOARD OF INDIAN COMMISSIONERS,
Washington, D. C., November 7, 1871.

SIR: Reservations for the roving Apache Indians of New Mexico and Arizona were selected under your instructions of 21st July, 1871, as follows:

For the Mimbres and Coyoteros at Tularosa Valley in New Mexico. (See accompanying paper A.)

For the Coyoteros and Chilions of Arizona at Camp Apache in White Mountain, Arizona. (See Appendix B.)

For the Arrivapis and Pinals at Camp Grant, A. T. (See Appendix C and accompanying map.)

For the Mohave Apaches at Camp Verde, A. T. (See Appendix D.)

A detailed description of the Camp Apache Reservation, which was established by Major-General Thomas, will be found on file in the War Department.

I also requested, with the advice of General Crook and the several post commanders, that temporary asylums where the Tontos, Hualapais, and western band of Apache Mohaves might be protected and fed, should be established at Camp McDowell, Beal Spring, and Date Creek, until such times as the Indians collected there could be removed to the above reservations.

Very respectfully, your obedient servant,

VINCENT COLYER.

Hon. C. DELANO,

Secretary of the Interior, Washington, D. C.

[Inclosure A.]

TULAROSA VALLEY RESERVE,
CAMP TULAROSA, NEW MEXICO,
August 29, 1871.

SIR: Agreeably to the power conferred upon me by the President, and communicated to me in the letter of the Hon. Secretary of the Interior of the 22d July, 1871, that I should proceed to New Mexico and Arizona, and there take such action as in my judgment should be deemed wisest and most proper for locating the nomadic tribes of those Territories upon suitable reservations, bringing them under the control of the proper officers of the Indian Department, &c., assisted by yourself and O. F. Piper, agent for the southern Apache Indians, I have carefully examined the place and neighborhood at Cañada Alamosa, where the agency is at present located, and, for several reasons, find the same unsuitable for a reservation. Assisted by the officers named above, I have also carefully inspected the valley of the Tularosa, and finding the same to possess most of the requisites necessary to a home for the Indians, it being remote from white settlements, surrounded by mountains not easily crossed, sufficient arable lands, good water, and plenty of wood and game, I hereby declare the said valley of the Tularosa, beginning at the headwaters of the Tularosa River and its tributaries in

the mountains, and extending down the same, ten miles on each side for a distance of thirty miles, to be an Indian reservation for the sole use and occupation of the southern and other roving bands of Apache Indians, their agent, and other officers and employes of the government; the laws relating to Indian reservations in the United States governing the same, until such time as the Executive or Congress shall approve or set aside this order. I would therefore suggest that Agent Piper be instructed to remove this agency and the Indians under his charge from Canada Almosa to the Tularosa Valley as soon as practicable after the receipt of this letter. The War Department having directed the officers commanding the district of New Mexico and Arizona to afford military protection to such Indians as may be induced to come in, both on their way and after arrival at the reservation, the agency will be amply protected, and the department having authorized me to supply these Indians with whatever may be necessary, you are at liberty to incur such moderate expenditures as may be absolutely necessary to carry out the above instructions.

Very respectfully, your obedient servant,

VINCENT COLYER,
Commissioner.

NATHANIEL POPE, Esq.,
Superintendent of Indian Affairs.

[Inclosure B.]

DEPARTMENT OF THE INTERIOR,
BOARD OF INDIAN COMMISSIONERS,
Camp Apache, Arizona Territory, September 5, 1871.

SIR: As the White Mountain region has been set apart by the War Department as an Indian reservation, and there are several bands of peaceably disposed Apaches, who have for many years lived in this country, who cannot be removed without much suffering to themselves, risk of war and expense to the government, I have concluded to select the White Mountain reservation, the boundaries of which were defined in letter of H. M. Robert, major of engineers, dated Headquarters Military Division of the Pacific, San Francisco, Cal., January 31, 1870, as one of the Indian reservations upon which the Apache Indians of Arizona may be collected, fed, clothed, and otherwise provided for and protected, agreeable to the power conferred upon me at the suggestion of the President, by the Hon. Secretary of the Interior, under date July 21, 1871, and supplementary orders July 31, 1871, copies of which are herewith inclosed.

Agreeable to your wish that I should name the articles and amount of provisions to be issued, I would suggest that one pound of beef and one pound of corn per capita be issued with salt daily, and sugar and coffee occasionally.

Very respectfully, your obedient servant,

VINCENT COLYER,
Commissioner.

Lient. Col. JOHN GREEN,
*First Cavalry, U. S. A., Commanding
Camp Apache, Arizona Territory.*

ENGINEER'S OFFICE,
HEADQUARTERS MILITARY DIVISION OF THE PACIFIC,
San Francisco, Cal., January 31, 1870.

SIR: I respectfully forward the following description of the proposed Indian reservation in Arizona; the boundaries of the reservation to be as follows, as shown in red on the accompanying map: Starting at the point of intersection of the boundary between New Mexico and Arizona with the south edge of the Black Mesa, and following the southern edge of the Black Mesa, to a point due north of Sombrero or Plumoso Butte; then in the direction of the Picache Colorado to the crest of the Apache Mountains, following said crest down the Salt River to Pinal Creek, and then up the Pinal Creek to the top of the Pinal Mountains; then following the crest of the Pinal range, "the Cordilleras de la Gila," the "Almagra Mountains," and other mountains bordering the north bank of the Gila River, to the New Mexican boundary near Steeple Rock; then following said boundary north to its intersection with the south edge of the Black Mesa, the starting point.

H. M. ROBERT,
Major Engineers.

General W. D. WHIPPLE,
Adjutant-General Military Division of the Pacific.

[Inclosure C.]

CAMP GRANT RESERVATION, DEPARTMENT OF THE INTERIOR,
BOARD OF INDIAN COMMISSIONERS,
Camp Grant, Arizona Territory, September 18, 1871.

SIR: The boundaries of the reservation, selected with the approval of the President and Secretary of the Interior and Secretary of War, at Camp Grant, Arizona Territory, within the limits of which all peaceably disposed Arivapa, Pinal, and other roving bands of Apache Indians are hereafter to be protected, fed, and otherwise provided for, will be as follows: Bounded north by the Gila River; west by a line ten miles from and parallel to the general course of the San Pedro River; south by a line at right angles to the western boundary crossing the San Pedro, ten miles from Camp Grant; east by a line at right angles to the southern boundary, touching the western base of Mount Turnbull, terminating at the Gila River, the northern boundary.

Citizens who have built or are now working ranches within the above described boundaries, will be allowed to remain to secure their crops and care for their property, until further orders from Washington, D. C.; provided they conform to the laws prescribed by Congress for the government of Indian reservations. A copy of the laws and regulations governing this as well as all other Indian reservations will be forwarded to you on my return to Washington.

Very respectfully, &c.,

VINCENT COLYER,
Commissioner.

Lieut. ROYAL E. WHITMAN, U. S. A.,
In charge Indian reservation, Camp Grant, Arizona Territory.

[Inclosure D.]

CAMP VERDE, ARIZONA TERRITORY,
October 3, 1871.

GENERAL: Having personally inspected the country and the condition of the Apache Mohave Indians on the Verde River, above this post, and finding the Indians to be in considerable numbers, sick, destitute, and in a starving condition, having no boundaries defining their home, their country overrun by hunters who kill their game and not unfrequently kill the Indians—gold prospectors and others, none of whom locate in this section of the country—agreeably to the powers conferred upon me by the President, and communicated to me in the letter of the Secretary of the Interior, dated July 1, 1871, and the orders of the Secretary of War, July 18 and 31, 1871, and in harmony with the humane action of Congress in providing funds for this purpose, I have concluded to declare all that portion of country adjoining on the northwest side of and above the military reservation of this post, on the Verde River, for a distance of ten miles on both sides of the river, to the point where the old wagon-road to New Mexico crosses the Verde, supposed to be a distance up the river of about forty-five miles, to be an Indian reservation, within the limits of which all peaceably disposed Apache Mohave Indians are to be protected, fed, and otherwise cared for, and the laws of Congress and executive orders relating to the government of Indian reservations shall have full power and force within the boundaries of the same, unless otherwise ordered by Congress or the President.

VINCENT COLYER,
Commissioner.

Brevet Maj. Gen. C. GROVER,
Commanding Camp Verde, Arizona Territory.

These recommendations were approved by the President as follows:

EXECUTIVE MANSION,
Washington, D. C., November 9, 1871.

Respectfully referred to the Secretary of War, who will take such action as may be necessary to carry out the recommendations of the Secretary of the Interior.

U. S. GRANT.

And indorsed by General Sherman thus:

HEADQUARTERS ARMY OF THE UNITED STATES,
Washington, D. C., November 9, 1871.

GENERAL: I now inclose you copies of a correspondence between the Secretary of the Interior and War Department on the subject of the policy that is to prevail in Arizona with the Apache Indians. The Secretary of War wishes you to give all the necessary orders to carry into full effect this policy, which is the same that prevails in

the Indian country generally, viz, to fix and determine (usually with the assent expressed or implied of the Indians concerned) the reservation within which they may live and be protected by all branches of the Executive Government; but if they wander outside they at once become objects of suspicion liable to be attacked by the troops as hostile. The three reservations referred to in these papers, and more particularly defined in the accompanying map, seem far enough removed from the white settlements to avoid the dangers of collision of interest. At all events, these Indians must have a chance to escape war, and the most natural way is to assign them homes and to compel them to remain thereon. While they remain on such reservations there is an implied condition that they should not be permitted to starve, and our experience is that the Indian Bureau is rarely supplied with the necessary money to provide food, in which event you may authorize the Commissary Department to provide for them, being careful to confine issues only to those acting in good faith and only for absolute wants.

The commanding officer of the nearest military post will be the proper person to act as the Indian agent until the regular agents come provided with the necessary authority and funds to relieve them; but you may yourself, or allow General Crook to appoint these temporary agents regardless of rank.

The citizens of Arizona should be publicly informed of these events, and that the military have the command of the President to protect these Indians on their reservations, and that under no pretense must they invade them, except under the leadership of the commanding officer having charge of them.

The boundaries of these reservations should also be clearly defined, and any changes in them suggested by experience should be reported, to the end that they may be modified or changed by the highest authority.

After general notice to Indians and whites of this policy, General Crook may feel assured that whatever measures of severity he may adopt to reduce these Apaches to a peaceful and subordinate condition, will be approved by the War Department and the President.

I am, your obedient servant,

W. T. SHERMAN, *General.*

General J. M. SCHOFIELD,
Commanding Military Division Pacific.

White Mountain and Chiricahua Reserves.

EXECUTIVE MANSION, *December 14, 1872.*

It is hereby ordered that the following tract of country be, and the same is hereby, withheld from sale and set apart as a reservation for certain Apache Indians in the Territory of Arizona, to be known as the "Chiricahua Indian Reservation," viz:

Beginning at Dragoon Springs near Dragoon Pass, and running thence northeasterly along the north base of the Chiricahua Mountains to a point on the summit of Peloncillo Mountains or Stevens Peak range; thence running southeasterly along said range through Stevens Peak to the boundary of New Mexico; thence running south to the boundary of Mexico; thence running westerly along said boundary 55 miles; thence running northerly, following substantially the western base of the Dragoon Mountains, to the place of beginning.

It is also hereby ordered that the reservation heretofore set apart for certain Apache Indians in the said territory known as the "Camp Grant Indian Reservation" be, and the same is hereby, restored to the public domain.

It is also ordered that the following tract of country be, and the same is hereby, withheld from sale and added to the White Mountain Indian Reservation in said territory, which addition shall hereafter be known as the "San Carlos division of the White Mountain Indian Reservation," viz:

Commencing at the southeast corner of the White Mountain Reservation as now established, and running thence south to a line 15 miles south of and parallel to the Gila River; thence west along said line to a point due south of the southwest corner of the present White Mountain Reservation; thence north to the said southwest corner of the aforesaid White Mountain Reservation; and thence along the southern boundary of the same to the place of beginning; the said addition to be known as the "San Carlos division of the White Mountain Reservation," which will make the entire boundary of the White Mountain Reserve as follows, viz:

Starting at the point of intersection of the boundary between New Mexico and Arizona with the south edge of the Black Mesa, and following the southern edge of the Black Mesa to a point due north of Sombrero or Plumoso Butte; thence due south to said Sombrero or Plumoso Butte; thence in the direction of the Piache Colorado to the crest of the Apache Mountains following said crest down the Salt River to Pinal

Creek, to the top of the Pinal Mountains; thence due south to a point 15 miles south of the Gila River; thence east with a line parallel with and 15 miles south of the Gila River to the boundary of New Mexico; thence north along said boundary line to its intersection with the south edge of the Black Mesa, the place of beginning.

U. S. GRANT.

White Mountain Reserve.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., July 30, 1873.

Respectfully submitted to the President with the recommendation that all that portion of the valley of the Gila River in the Territory of Arizona, hitherto included in the San Carlos division of the White Mountain Indian Reservation as established by executive order, dated December 14, 1872, lying east of and above the site of old Camp Goodwin, be restored to the public domain as recommended by the Acting Commissioner of Indian Affairs.

B. R. COWEN,
Acting Secretary.

EXECUTIVE MANSION, August 5, 1873.

Agreeable to the above recommendation of the Acting Secretary of the Interior, it is hereby ordered that the land therein described be restored to the public domain.

U. S. GRANT.

EXECUTIVE MANSION, July 21, 1874.

It is hereby ordered that all that portion of the White Mountain Indian Reservation in Arizona Territory lying east of $109^{\circ} 30'$ west longitude be restored to the public domain.

U. S. GRANT.

EXECUTIVE MANSION, April 27, 1876.

It is hereby ordered that all that portion of the White Mountain Indian Reservation in Arizona Territory lying west of the following-described line, viz: Commencing at the northwest corner of the present reserve, a point at the southern edge of the Black Mesas, due north of Sombrero or Plumose Butte; thence due south to said Sombrero or Plumose Butte; thence southeastwardly to Chromo Peak; thence in a southerly direction to the mouth of the San Pedro River; thence due south to the southern boundary of the reservation, be, and the same hereby is, restored to the public domain.

U. S. GRANT.

EXECUTIVE MANSION, January 26, 1877.

It is hereby ordered that all that portion of the White Mountain Indian Reservation in Arizona Territory lying within the following-described boundaries, viz: Commencing at a point known as corner I of survey made by Lieut. E. D. Thomas, Fifth Cavalry, in March, 1876, situated northeast of, and 313 chains from, flagstaff of Camp Apache, magnetic variation $13^{\circ} 48'$ east; thence south $68^{\circ} 34'$ west 360 chains, to corner II, post in monument of stones, variation $13^{\circ} 45'$ east; thence south $7^{\circ} 5'$ west, 240 chains to corner III, post in monument of stones, variation $13^{\circ} 43'$ east; thence north $68^{\circ} 34'$ east, 360 chains to corner IV, post in monument of stones, magnetic variation $13^{\circ} 42'$ east; thence north $7^{\circ} 15'$ east, 240 chains to place of beginning, comprising 7,421.14 acres, be restored to the public domain.

U. S. GRANT.

EXECUTIVE MANSION, March 31, 1877.

It is hereby ordered that all of that portion of the White Mountain Indian Reservation in the Territory of Arizona lying within the following-described boundaries, be, and the same hereby is, restored to the public domain, to wit: Commencing at a point at the south bank of the Gila River, where the San Pedro empties into the same; thence up and along the south bank of said Gila River ten miles; thence due south to the southern boundary of the said reservation; thence along the southern boundary to the western boundary thereof; thence up said western boundary to the place of beginning.

R. B. HAYES.

CALIFORNIA.

*Hoopa Valley Reserve.*EXECUTIVE MANSION, *June 23, 1876.*

It is hereby ordered that the south and west boundaries, and that portion of the north boundary west of Trinity River, surveyed in 1875 by C. T. Bissel, and the courses and distances of the east boundary, and that portion of the north boundary east of Trinity River, reported but not surveyed by him, viz: "Beginning at the southeast corner of the reservation, at a post set in mound of rocks, marked 'H. V. R., No. 3'; thence south $17\frac{1}{2}^{\circ}$ west, 905.15 chains to southeast corner of reservation; thence south $72\frac{1}{2}^{\circ}$ west, 480 chains to the mouth of Trinity River," be, and hereby are declared to be the exterior boundaries of Hoopa Valley Indian Reservation, and the land embraced therein, an area of 89,572.43 acres, be, and hereby is, withdrawn from public sale, and set apart for Indian purposes, as one of the Indian reservations authorized to be set apart in California, by act of Congress approved April 8, 1864. (13 Stats., p. 39.)

U. S. GRANT.

Klamath Reserve.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
November 10, 1855.

SIR: Referring to your communication of the 8th of August last, to the acting Commissioner of Indian Affairs, advising him of the approval by the President of the United States of the recommendation of the department that it was expedient to expend the money appropriated on the 3d of March last for removing the Indians in California to two additional military reservations, I have the honor now to make the following report:

On the 15th of August last the acting Commissioner inclosed a copy of your letter of the 8th of that month to the superintendent of Indian affairs in California, with directions to select these reservations from such "tracts of land adapted as to soil, climate, water privileges and timber, to the comfortable and permanent accommodation of the Indians, which tracts should be unincumbered by old Spanish grants or claims of recent white settlers," limiting the dimensions of the reserves to within 25,000 acres each; and to report to this office a description of their geographical position in relation to streams, mountain ranges and county lines, &c., and indicating the same upon a map. A copy of that letter is herewith, marked A. By the last mail from California I have received from Superintendent Thos. I. Henley a report upon this subject, dated the 4th ultimo (a copy of which is herewith, marked B), by which it appears he recommends as one of the reservations aforesaid "a strip of territory one mile in width on each side of the (Klamath) river, for a distance of 20 miles." The superintendent remarks upon the character of the country selected, and incloses an extract from a report (also herewith, marked C) to him of the 19th of June last, by Mr. S. G. Whipple, which contains in some detail a description of the country selected, habits and usages of the Indians, &c., but no map is furnished.

It will be observed from this report of the superintendent that he has deemed it important to continue the employ of an agent, and to prepare for raising a crop, in order to assure the Indians of the good faith of the government, and to preserve the peace of the country. Considering the great distance of this reserve from the seat of government, and the length of time it necessarily requires to communicate with an agency at the Klamath, it is desirable that some definite action be taken, if practicable, before the sailing of the next steamer, to leave New York on the 20th instant.

I, therefore, beg leave to ask your attention to the subject, and if you shall be of the opinion from the representations made by the superintendent in California, and Mr. Whipple, that the selection at the mouth of the Klamath River is a judicious and proper one, that it be laid before the President of the United States for his approval; but with the provision, however, that upon a survey of the tract selected, that a sufficient quantity be cut off from the upper end of the proposed reserve to bring it within the limitation of 25,000 acres, authorized by the act of 3d March last.

I also inclose herewith a copy of another letter from Superintendent Henley of 4th ultimo (marked D), in which he states in relation to the other reserve, that it is intended to locate it "between the headwaters of Russian River and Cape Mendocino." In reference to both of these proposed re-serves, and as connected with the means to be used to maintain peaceable relations with the Indians, the superintendent is of opinion that it is of great importance to provide for crops, and that to do so an agent in each instance is necessary. As this last-named selection has not been defined by any specific boundaries, and no sufficient description is given as to soil, climate, and suitability for Indian purposes, to enable the department to determine the matter under-

standingly, of course nothing definite can now be done. But it may not be improper to consider the subject in connection with the general intent as to the particular locality in which it is proposed to make the location.

The reserve proposed on the Klamath River and Pacific coast does not appear from the map of the State of California to be very far removed from Cape Mendocino, or a point between that and Russian River; and as provision is made only for two reserves in the State, other than those already in operation, the question arises whether it should not be situated farther in the interior, or perhaps eastern part of the State, than the point referred to. The Noome Lacke Reserve is situated in one of the Sacramento valleys, at about the latitude of 40° north and 122° of longitude west, about the center of that portion of the State north of the port of San Francisco. As, therefore, the proposed Klamath Reserve, being northwest from the Noome Lacke Reservation, would appear to be adapted to the convenient use of the Indians in that direction, the question is suggested whether the other reserve should not be located farther east and north, say on the tributaries of either Pitt or Feather rivers. As in the case of the proposed reserve of the Klamath, I am desirous of obtaining your opinion and that of the President of the United States, with such decision as may be arrived at under the circumstances, in season to communicate the same by the next California mail, for the government of the action of Superintendent Henley.

Very respectfully, your obedient servant,

GEO. W. MANYPENNY,
Commissioner.

Hon. R. McCLELLAND,
Secretary of the Interior.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., November 12, 1855.

SIR: I have the honor to submit herewith the report from the Commissioner of Indian Affairs of the 10th instant, and its accompanying papers, having relation to two of the reservations in California for Indian purposes, authorized by the act of 3d March last.

The precise limits of but one of the reservations, viz, a strip of territory commencing at the Pacific Ocean and extending one mile in width on each side of the Klamath River, are given, no sufficient data being furnished to justify any definite action on the other.

I recommend your approval of the proposed Klamath Reservation, with the provision, however, that upon a survey of the tract a sufficient quantity be cut off from the upper end thereof to bring it within the limit of 25,000 acres authorized by law.

Respectfully, your obedient servant,

R. McCLELLAND,
Secretary.

The PRESIDENT.

Let the reservation be made, as proposed.

FRANKLIN PIERCE.

NOVEMBER 16, 1855.

Mission Indian Reserves.

EXECUTIVE MANSION, *December 27, 1875.*

It is hereby ordered that the following-described lands in the county of San Diego, Cal., viz:

Portrero—San Bernardino base and meridian, including Rincon, Gapich, and La Joya, township 10 south, range 1 east, sections 16, 23, 25, 26, 30, 31, 32, 33, 34, 35, 36, and fractional sections 17, 18, 19, 20, 21, 22, 27, 28, and 29;

Coahuila—Township 7 south, range 2 east, sections 25, 26, 27, 28, 33, 34, 35, and 36; township 7 south, range 3 east, sections 26, 27, 28, 29, 30, 31, 32, 33, 34, and 35; township 8 south, range 2 east, sections 1, 2, 3, and 4; township 8 south, range 3 east, sections 2, 3, 4, 5, and 6;

Capitan Grande—Township 14 south, range 2 east, sections 25, 26, 27, 34, 35, and 36; township 14 south, range 3 east, sections 31 and 32; township 15 south, range 2 east, sections 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10; township 15 south, range 3 east, sections 5 and 6.

Santa Ysabel—Including Mesa Grande, township 11 south, range 2 east, south half of section 21, northwest quarter, and east half of section 28, and sections 25, 26, and 27; township 11 south, range 3 east, sections 25, 26, 27, 28, 33, 34, 35, 36, and fractional sections 29, 31, and 32; township 12 south, range 2 east, sections 3, 10, 14, 15, and fractional section 13; township 12 south, range 3 east, sections 1, 2, 12, and fractional sections 3, 4, 10, 11, 13, and 14;

Pala—Township 9 south, range 2 west, northeast quarter of section 33, and north half of the north half of 34;

Aqua Calienta—Township 10 south, range 3 east, southeast quarter of section 23, southwest quarter of 24, west half of 25, and east half of 26;

Sycuan—Township 16 south, range 1 east, section 13;

Maja—Township 13 south, range 3 east, northeast quarter of section 35;

Cosmit—Township 13 south, range 3 east, north half of northeast quarter of section 25, be, and the same are hereby, withdrawn from sale and set apart as reservations for the permanent use and occupancy of the Mission Indians in Lower California.

U. S. GRANT.

EXECUTIVE MANSION, *May 15, 1876.*

It is hereby ordered that the following-described lands in San Bernardino County, Cal., viz:

Portrero—Township 2 south, range 1 east, section 36;

Mission—Township 2 south, range 3 east, sections 12, 13, and 14;

Aqua Calienta—Township 4 south, range 4 east, section 14, and south half of southeast quarter and northeast half of section 22;

Torros—Township 7 south, range 7 east, section 2;

Village—Township 7 south, range 8 east, section 16;

Cabezons—Township 7 south, range 9 east, section 6;

Village—Township 5 south, range 8 east, section 19;

Village—Township 5 south, range 7 east, section 24, be, and the same hereby are, withdrawn from sale and set apart as reservations for the permanent use and occupancy of the Mission Indians in Southern California, in addition to the selections noted and reserved under executive order dated 27th December last.

U. S. GRANT.

EXECUTIVE MANSION, *May 3, 1877.*

It is hereby ordered that the following lands, situate in California, viz, township 10 south, range 1 east, sections 16 and 36, San Bernardino: township 7 south, range 2 east, section 36; township 14 south, range 2 east, section 36; township 11 south, range 3 east, section 36; township 9 south, range 2 west, north half of northeast quarter, section 33, being lands withdrawn from the public domain for the Mission Indians by President's order of December 27, 1875; also the following: township 2 south, range 1 east, section 36; township 7 south, range 8 east, section 16, being lands withdrawn by President's order of May 15, 1876, for the same purpose, be, and the same are hereby, restored to the public domain.

R. B. HAYES.

EXECUTIVE MANSION, *August 25, 1877.*

It is hereby ordered that the following lands in California, to wit, all the even-numbered sections and all the unsurveyed portions of township 2 south, range 1 east, township 2 south, range 2 east; township 3 south, range 1 east; and township 3 south, range 2 east, San Bernardino meridian, excepting sections 16 and 36, and excepting also all tract or tracts the title to which has passed out of the United States Government, be, and the same hereby are, withdrawn from sale and settlement, and set apart as a reservation for Indian purposes.

R. B. HAYES.

EXECUTIVE MANSION, *September 29, 1877.*

It is hereby ordered that the following-described lands in California, to wit, all the even-numbered sections, and all the unsurveyed portions of township 4 south, range 4 east; township 4 south, range 5 east; and township 5 south, range 4 east, San Bernardino meridian, excepting sections 16 and 36, and excepting also any tract or tracts the title to which has passed out of the United States Government, be, and the same hereby are, withdrawn from sale and settlement, and set apart as a reservation for Indian purposes for certain of the Mission Indians.

R. B. HAYES.

Round Valley Reserve.

DEPARTMENT OF THE INTERIOR.

Washington, D. C., March 30, 1870.

SIR: I have the honor to transmit herewith, a communication dated the 4th instant from the Commissioner of Indian Affairs, and accompanying papers, map, &c., recom-

mending the enlargement of Round Valley Indian Reservation in Mendocino County, California, to the extent indicated by the Commissioner, and as delineated on the said map.

I concur with the Commissioner in the opinion that the Indian service in California requires that all of "Round Valley" be reserved for Indian purposes, and have the honor to request that said valley be set apart as an Indian reservation, as the same is enlarged in accordance with the report of Superintendent McIntosh, plat, field-notes, and schedule of lands, marked A, B, and C, which are herewith inclosed.

With great respect, your obedient servant,

J. D. COX, *Secretary.*

OFFICE OF THE SUPERINTENDENT OF INDIAN AFFAIRS, CALIFORNIA,
San Francisco, February 18, 1870.

SIR: I have the honor to inclose to you the field-notes of the recent survey of the Round Valley Indian Reservation. I also forward a proposed description of lands to be set apart for an Indian reservation at Round Valley, Mendocino County, California. * * * *

I am, sir, very respectfully, your obedient servant,

J. B. MCINTOSH.

Bvt. Maj. Gen., U. S. A., Supt. of Indian Affairs.

HON. E. S. PARKER,

Commissioner of Indian Affairs.

[Inclosure C.]

Proposed description of lands to be reserved for Indian purposes, in Round Valley, Mendocino County, California.

All that piece or tract of land situated in Round Valley, Mendocino County, California, being a portion of the four (4) townships hereinafter mentioned, namely :

Townships 22 and 23 north, range 12 west, and 22 and 23 north, range 13 west, Mount Diablo meridian, and contained within the boundaries hereinafter described.

Beginning at a white-oak post the SE. corner section 23, township 23 north, range 13 west, Mount Diablo meridian ; thence S. $72^{\circ} 22'$ W. for 5,330 feet (magnetic variation $17^{\circ} 38'$ E.), to a white-oak post ; thence S. for 3,154 feet, to a white-oak post in stone mound ; thence S. 23° E. for 2,073 feet, to a white-oak post ; thence S. $7^{\circ} 35'$ E. for 4,491 feet, to a white-oak post ; thence S. $37^{\circ} 25'$ E. for 13,324 feet, to a white-oak post on rock mound ; thence S. $41^{\circ} 40'$ E. for 4,763 feet, to an oak post in rock mound ; thence S. $71^{\circ} 20'$ E. for 2,845 feet, to an oak post ; thence S. $20^{\circ} 30'$ E. for 4,098 feet, to a black-oak tree, blazed on four (4) sides four (4) feet from the ground ; thence S. $80^{\circ} 15'$ E. for 2,730 feet, to a pine tree 100 feet in height, bushy top, blazed as above ; thence S. $53^{\circ} 10'$ E. for 937 feet, to a pine tree 20 inches in diameter, forked 10 feet above ground, blazed as above ; thence S. $45^{\circ} 10'$ E. for 2,333 feet, to a black-oak tree 30 inches in diameter, blazed as above ; thence S. $72^{\circ} 58'$ E. for 9,120 feet, to an oak post on high knoll ; thence N. $39^{\circ} 33'$ E. for 4,627 feet, to a white-oak tree 30 inches in diameter, blazed as above ; thence N. $28^{\circ} 30'$ E. for 2,485 feet, to a pine tree 30 inches in diameter, blazed as above ; thence N. $16^{\circ} 42'$ E. for 3,209 feet, to a black-oak tree 32 inches in diameter, and blazed as above ; thence N. $51^{\circ} 40'$ E. for 3,797 feet, to a white-oak tree 15 inches in diameter, and blazed as above ; thence N. $23^{\circ} 32'$ E. for 3,053 feet, to a white-oak tree 10 inches in diameter, and blazed as above ; thence N. $7^{\circ} 35'$ E. for 6,150 feet, to a white-oak tree 20 inches in diameter, and blazed as above ; thence N. $48^{\circ} 40'$ E. for 1,088 feet, to a pine tree 30 inches in diameter, and blazed as above ; thence N. 15° E. for 719 feet, to a pine tree 20 inches in diameter, and blazed as above ; thence N. $71^{\circ} 25'$ E. for 962 feet, to a forked black oak 20 inches in diameter, and blazed as above ; thence N. $0^{\circ} 15'$ E. for 13,930 feet, to a white oak 30 inches in diameter, and blazed as above ; thence N. $53^{\circ} 45'$ W. for 1,678 feet, to a pine tree 15 inches in diameter, and blazed as above ; thence N. $45^{\circ} 25'$ W. for 4,616 feet, to a white-oak tree 40 inches in diameter, and blazed as above ; thence N. $76^{\circ} 55'$ W. for 3,935 feet, to a white-oak tree 22 inches in diameter, and blazed as above ; thence N. $81^{\circ} 45'$ W. for 5,670 feet, to a black-oak tree 20 inches in diameter, and blazed as above ; thence N. $89^{\circ} 15'$ W. for 1,874 feet, to a pine tree 35 inches in diameter, and blazed as above ; thence N. $83^{\circ} 15'$ W. for 849 feet, to a pine tree 40 inches in diameter, and blazed as above ; thence N. $71^{\circ} 15'$ W. for 1,257 feet, to a pine tree 30 inches in diameter, and blazed as above ; thence N. $60^{\circ} 40'$ W. for 1,337 feet, to a pine tree 28 inches in diameter, and blazed as above ; thence N. $52^{\circ} 25'$ W. for 1,530 feet, to a pine tree 30 inches in diameter, and blazed as above ;

thence N. $64^{\circ} 40'$ W. for 5,525 feet, to a pine tree 35 inches in diameter, and blazed as above; thence S. $78^{\circ} 30'$ W. for 604 feet, to a pine tree 30 inches in diameter, and blazed as above; thence N. $84^{\circ} 35'$ W. for 3,357 feet, to a pine tree 9 inches in diameter, and blazed as above; thence N. $71^{\circ} 40'$ W. for 3,103 feet, to a pine tree 40 inches in diameter, and near a boulder, and blazed as above; thence N. $87^{\circ} 35'$ W. for 4,842 feet, to a black-oak tree 40 inches in diameter, and blazed as above; thence S. $66^{\circ} 20'$ W. for 2,423 feet, to a pine tree 60 inches in diameter, and blazed as above; thence S. $3^{\circ} 37'$ E. for 3,314 feet, to a maderone tree 40 inches in diameter, and blazed as above; thence S. $34^{\circ} 10'$ W. for 9,170 feet, to a white-oak tree 30 inches in diameter, and blazed as above; thence S. $23^{\circ} 10'$ W. for 1,768 feet, to a white-oak tree 50 inches in diameter, and blazed as above; thence S. $16^{\circ} 50'$ W. for 734 feet, to a pine tree 40 inches in diameter, and blazed as above; thence S. $35^{\circ} 40'$ W. for 993 feet, to a double pine tree, 60 inches by 25 inches at butt, and blazed as above; thence S. $0^{\circ} 25'$ W. for 409 feet, to a pine tree 32 inches in diameter, and blazed as above; thence S. $61^{\circ} 15'$ E. for 1,046 feet, to a pine tree 40 inches in diameter, and blazed as above; thence N. $48^{\circ} 14'$ E. for 1,347 feet, to a white-oak tree 30 inches in diameter, and blazed as above; thence N. $41^{\circ} 50'$ E. for 1,043 feet, to a white-oak tree 25 inches in diameter, and blazed as above; thence N. $32^{\circ} 40'$ E. for 735 feet, to point of beginning.

The total length of said boundary being 31 miles and 1,039 feet, and including an area of 31,683 acres; said tract of land being more minutely described in the field-notes and plat of the survey of said tract executed in December, 1859, and January, 1870, under the superintendence of Bvt. Maj. Gen. John B. McIntosh, U. S. Army, by Bvt. 2d Lieut. R. U. Varazo, Corps of Engineers, U. S. A.

WASHINGTON, D. C., *March 30, 1870.*

I hereby order that "Round Valley," in Mendocino County, California, be set apart as an Indian reservation, in accordance with the recommendation of the Secretary of the Interior, as the same is delineated on the map accompanying his letter of the 30th March, 1870.

U. S. GRANT.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
March 29, 1873.

SIR: I have the honor to invite your attention to the terms of an act of Congress approved March 3, 1873, entitled "An act to restore a part of the Round Valley Indian Reservation in California to the public lands, and for other purposes."

Section 2 of said act provides "that said township line between townships 22 and 23 north, extending from the middle fork of Eel River on the east to Eel River on the west, shall hereafter be the southern boundary of the Indian reservation in Round Valley, and the center of the middle fork of Eel River shall be the eastern boundary, and the center of Eel River shall be the western boundary of said reservation, with the privilege of fishing in said streams."

Section 3 of the same act further provides "that immediately after the passage of this act the President shall cause to be withdrawn from sale or entry under the homestead and pre-emption laws, all the land lying north of the southern boundary of the reservation as herein defined, and bounded north by the Eel River and the north fork of said river, east by the middle fork, and west by Eel River." * * *

In compliance with the provisions of said act, I have the honor to recommend that the President be requested to issue his order directing that the tract of country described in said section 3 thereof be withdrawn and reserved from sale or entry as public lands until after the report of the commissioners appointed to fix the northern boundary of said reservation shall have been received and approved.

Very respectfully, your obedient servant,

H. R. CLUM,
Acting Commissioner.

The Hon. SECRETARY OF THE INTERIOR.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., April 8, 1873.

SIR: I have the honor to hand you herewith a letter dated the 29th ultimo, from the Acting Commissioner of Indian Affairs, wherein it is recommended that an order be issued by the Executive directing that the tract of country described in the third section of the act approved March 3, 1873, entitled "An act to restore a part of the Round Val-

ley Indian Reservation in California to the public lands, and for other purposes," be withdrawn and reserved from sale and entry as public land until the report of the commissioners appointed under said act to fix the northern boundary of said reservation, &c., shall have been received and action had thereon.

The recommendation of the Acting Commissioner is approved, and I have respectfully to request that an order may be issued setting apart the lands referred to for the purpose named.

I have the honor to be, sir, your obedient servant,

C. DELANO,
Secretary.

To the PRESIDENT.

EXECUTIVE MANSION, *April 8, 1873.*

Let the lands described in the third section of the act of 3d March, 1873, for the restoration to market of a part of the Round Valley Indian Reservation in California, be withdrawn from sale and entry, as recommended in the within letter of the honorable the Secretary of the Interior of this date.

U. S. GRANT.

EXECUTIVE MANSION, *May 18, 1875.*

Whereas an act of Congress entitled "An act to restore a part of the Round Valley Indian Reservation in California to the public lands, and for other purposes," approved March 3, 1873 (Stats. at Large, vol. 17, p. 633), defines the south, east, and west boundaries of said reservation, and authorizes and directs the Secretary of the Interior to appoint a commission to report its north boundary, and said commission having made their report, which was approved by the Secretary of the Interior August 4, 1874, I hereby order and proclaim the following as the boundaries of the Round Valley Indian Reservation in California, conformable to said act of Congress, viz:

Beginning for the same at a point in section 36, of township 23, range 12 west, Mount Diablo meridian, where the township line crosses Eel River, being at a point about eighty rods west of the southeast corner of said township and section; thence following the courses of Eel River up said stream, in the center thereof, to a point where the same is intersected by the stream known as Williams Creek or Bland Mountain Creek; thence following up the center of said creek to its extreme northern source on the ridge dividing the waters of said creek from the waters of Hall's Cañon or Creek, a tributary of the North Fork of Eel River, at the foot of Bland Mountain, crossing said dividing ridge at a point on a line where a small white-oak tree and a cluster of arbovitæ trees are branded with the letters U. S. R.; thence in a direct line to the center of said Hall's Cañon or Creek; thence following down the center of the same to its intersection with the North Fork of Eel River; thence down the center of said North Fork to its intersection with the main fork; thence following up the main fork of the Eel River, in the center thereof, where the township line between townships 22 and 23 north, range 13 west, would intersect said river, if produced; thence east along said township line through ranges 13 and 12 to the place of beginning.

U. S. GRANT.

EXECUTIVE MANSION, *July 26, 1876.*

The military reservation in California known as Camp Wright, embracing the west half of section 1 and the east half of section 2, township 22 north, range 13 west, and containing one mile square of land, be the same more or less, having been, with its buildings, improvements, &c., relinquished by the War Department, the executive order of April 27, 1869, creating said military reservation, is hereby revoked, and the said tract of land with its buildings, improvements, &c., is hereby withheld from public sale, and reserved for the use and occupancy of the Indians located on the Round Valley Reservation, as an extension thereof, until otherwise ordered.

U. S. GRANT.

Tule River Reserve.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., January 9, 1873.

SIR: I have the honor to submit herewith a letter from the Acting Commissioner of Indian Affairs, dated the 3d instant, requesting the setting apart for the use of the Tule River, King's River, Owen's River, Manche Cajon, and other scattering bands of Indians in California, a tract of land described as follows: Commencing on the South Tule

River, 4 miles below the Soda Springs on said river, running thence north to the ridge of mountains dividing the waters of the South Tule and Middle Tule; thence east on the dividing line 10 miles; thence south to the ridge dividing the waters of South Tule River and Deer Creek; thence west on said ridge 10 miles; thence north to the place of beginning; the said described tract of country being about 10 miles long and 6 miles wide. The request of the Acting Commissioner meets the approval of this department, and I respectfully recommend that an order be issued by the Executive setting apart the lands referred to for the purpose indicated.

I have the honor to be, your obedient servant,

B. R. COWEN,
Acting Secretary.

EXECUTIVE MANSION, *January 9, 1873.*

Let the lands described in the within letter be set apart as a reservation for the bands of Indians in California therein named, agreeably to the recommendation of the Acting Secretary of the Interior.

U. S. GRANT.

EXECUTIVE MANSION, *October 3, 1873.*

It is hereby ordered that the following tract of country be, and the same is hereby, withheld from sale and set apart as a reservation for the Tule River, King's River, Owen's River, Manche Cajon, and other scattered bands of Indians in the State of California, to be known as the "Tule River Indian Reservation," this being in lieu of the reservation set apart for those Indians by executive order, dated the 9th of January last, which is hereby canceled:

Commencing on the south fork of Tule River, 4 miles below the Soda Springs on said river, running thence north to the ridge of mountains dividing the waters of the North Fork and Middle Fork of Tule River; thence on said ridge easterly, extended if necessary, to a point from which a line running due south would intersect a line running due east from the place of beginning, and at a distance of 10 miles therefrom; thence from said point, due south, to the ridge, extended if necessary, dividing the waters of the South Fork of Tule River and Deer Creek; thence westerly on said ridge to a point due south of the place of beginning; thence north to the place of beginning, as indicated by red lines on above diagram.

U. S. GRANT.

EXECUTIVE MANSION, *August 3, 1878.*

It is hereby ordered that all of that portion of the Tule River Indian Reservation in California lying within the following boundary, viz: Commencing at a place where a line running due north from a point on the South Fork of the Tule River, 4 miles below the Soda Springs on said river, crosses the ridge of mountains dividing the waters of the South Fork and Middle Fork of Tule River; thence north to the ridge of mountains dividing the waters of the North Fork and Middle Fork of Tule River; thence on said ridge easterly to a point from which a line running due south would intersect a line running due east from the place of beginning, and at a distance of 10 miles therefrom; thence from said point due south to the ridge of mountains dividing the waters of the South Fork and Middle Fork of Tule River; thence westerly on said ridge to the place of beginning, be, and the same hereby is, restored to the public domain.

R. B. HAYES.

COLORADO.

Ute Reserve.

EXECUTIVE MANSION, *November 22, 1875.*

It is hereby ordered that the tract of country in the Territory of Colorado, lying within the following-described boundaries, viz: Commencing at the northeast corner of the present Ute Indian Reservation, as defined in the treaty of March 2, 1868 (Stats. at Large, vol. 15, p. 619), thence running north on the 107th degree of longitude to the first standard parallel north; thence west on said first standard parallel to the boundary line between Colorado and Utah; thence south with said boundary to the northwest corner of the Ute Indian Reservation; thence east with the north boundary of the said reservation to the place of beginning, be, and the same hereby is, withdrawn from sale and set apart for the use of the several tribes of Ute Indians, as an addition to the present reservation in said Territory.

U. S. GRANT.

EXECUTIVE MANSION, *August 17, 1876.*

It is hereby ordered that all that portion of country in the State of Colorado, lying within the following-described boundaries, and forming a part of the Uncompahgre Park, viz: Commencing at the fifty-third mile-post on the north line of the survey of the boundaries of the Ute cession, executed by James W. Miller, in 1875; thence south 4 miles; thence east 4 miles; thence north 4 miles, to the said north line; thence west to the place of beginning, be, and the same hereby is, withdrawn from the public domain and set apart as a part of the Ute Indian Reservation, in accordance with the first article of an agreement made with said Indians and ratified by Congress April 29, 1874. (Stats. at Large, vol. 18, p. 36.)

U. S. GRANT.

DAKOTA.

*Crow Creek Reserve.*USHER'S LANDING, DAK., *July 1, 1863.*

SIR: * * * With this report I transmit a plat and field notes of the surveys made for the Sioux and Winnebago reservations by Mr. Powers, and to which I desire to call your attention. * * *

The reservation for the Sioux of the Mississippi is bounded as follows, to wit: Beginning at a point in the middle channel of the Missouri River, opposite the mouth of Crow Creek, in Dakota Territory; follow up said channel of the Missouri River about fourteen miles, to a point opposite the mouth of Sne-o-tka Creek; thence due north and through the center of the stockade surrounding the agency buildings for the Sioux of the Mississippi and Winnebago Indians, about three miles, to a large stone mound; thence due east 20 miles; thence due south to the Cedar Island River or American Creek; thence down the said river or creek to the middle channel of the Missouri River; thence up said channel to the place of beginning. * * *

Very respectfully, your obedient servant,

CLARK W. THOMPSON,
*Superintendent of Indian Affairs.*Hon. WM. P. DOLE,
Commissioner of Indian Affairs.

[See An. Rep. Ind. Office for 1863, page 318, and also Stats. at Large, vol. 15, p. 635.]

*Fort Berthold Reserve.*HEADQUARTERS, FORT STEVENSON,
September 25, 1869.

SIR: I have the honor to report that I have consulted the best guides and obtained all available information in addition to my own examination, as far as it was practicable, in regard to a reservation for the Arickaree, Gros Ventre, and Mandan Indians.

I had an interview with the chiefs of the three tribes, and read the communication from the Commissioner of Indian Affairs, forwarded to me from the commanding general of the department, with which they seemed much pleased. I proposed to them the following reservation, with which they were satisfied: From a point on the Missouri River, four miles below the Indian village (Berthold), in a northeast direction three miles (so as to include the wood and grazing around the village); from this point a line running so as to strike the Missouri River at the junction of Little Knife River with it; thence along the left bank of the Missouri River to the mouth of the Yellowstone River, along the south bank of the Yellowstone River to the Powder River, up the Powder River to where the Little Powder River unites with it; thence in a direct line across to the starting-point four miles below Berthold. The Indians desired that the reservation should extend to the Mouse River, but in view of a railroad passing over that country, I did not accede to their wish; they seemed to comprehend my reason for not doing so, and were satisfied. I have endeavored in this proposed reservation to give them land enough to cultivate and for hunting and grazing purposes. I inclose a sketch of the proposed reservation.

Very respectfully, sir,

S. A. WAINWRIGHT,
*Captain Twenty-second Infantry, Commanding Post.*Bvt. Brig. Gen. O. D. GREENE,
Adjt. Gen. Dept. of Dakota, Saint Paul, Minn.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
Washington, D. C., April 2, 1870.

SIR: I have the honor to transmit herewith a letter of Capt. S. A. Wainwright, Twenty-second United States Infantry, commanding post at Fort Stevenson, Dak., dated September 25 last, indorsed respectively by the commanding officer of the Department of Dakota and by the assistant adjutant-general of the Military Division of the Missouri, and forwarded by the Adjutant-General of the United States Army to this office, relative to setting apart of a reservation for the Arickaree, Gros Ventre, and Mandan Indians.

This has been the subject of correspondence before between Maj. Gen. Winfield S. Hancock, commanding Department of Dakota, and this office.

General Hancock, in a letter dated near Fort Rice, Dak., July 21, 1869, addressed to Bvt. Maj. Gen. George L. Hartsuff, assistant adjutant-general, Military Division of the Missouri (copy of which has been furnished by direction of Lieutenant-General Sheridan to this office), states that the Arickaree, Gros Ventre and Mandan Indians, among others, complain "that whites come on their land at Berthold and cut wood for sale to steamboats. They want this stopped. They are willing that boats should go and cut all they want, but do not want strangers to come and sell their wood while they are starving; they want to cut and sell it themselves."

General Hancock further states, in the letter above referred to, that he did not know whether those Indians had a reservation or not, and that he has instructed the commanding officer at Fort Stevenson to examine the country about Berthold and to recommend what portions should be set off for them.

By letter dated August 16 last, General Hancock was informed by this office that by the treaty concluded at Fort Laramie, October 17, 1851, which was not ratified, but was amended by the Senate, and the stipulations as amended fulfilled by the government, the following are given as the boundaries of a reservation for the Gros Ventres, Arickarees, and Mandans, viz: Commencing at the mouth of Heart River; thence up the Missouri to the mouth of Yellowstone River; thence up the Yellowstone to the mouth of Powder River; thence southeast to the headwaters of the Little Missouri River; thence along the Black Hills to the head of Heart River, and down said river to the place of beginning.

A subsequent treaty was concluded with these Indians at Fort Berthold July 27, 1866. This makes no provision in regard to a reservation. The Indians parties to the same grant to the United States the right to lay out and construct roads, highways, and telegraphs through their country, and they cede to the United States "their right and title to the following lands situated on the northeast side of the Missouri River, to wit: Beginning on the Missouri River, at the mouth of Snake River, about 30 miles below Fort Berthold; thence up Snake River in a northeast direction 25 miles; thence southwardly, parallel to the Missouri River, to a point opposite and 25 miles east of old Fort Clarke; thence west to a point on the Missouri River opposite the old Fort Clarke; thence up the Missouri River to the place of beginning."

This treaty has never been ratified, but appropriations have been made by Congress in accordance with its provisions. There are no treaty stipulations with these Indians relative to a reservation for them which have been ratified.

It is proper here to state that the reservation as proposed by Captain Wainwright is a part of the country belonging to the Arickaree, Gros Ventre, and Mandan Indians, according to the agreement of Fort Laramie, with the addition of a strip of land east of the Missouri River from Fort Berthold Indian village to the mouth of Little Knife River, as shown by the inclosed diagram; and I therefore respectfully recommend that an order of the Executive may be invoked, directing the setting apart of a reservation for said Indians as proposed.

Very respectfully, your obedient servant,

E. S. PARKER,
Commissioner.

Hon. J. D. Cox,
Secretary of the Interior.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., April 12, 1870.

SIR: I have the honor herewith to lay before you a communication dated the 2d instant, from the Commissioner of Indian Affairs, together with the accompanying papers, reporting the selection, by Captain Wainwright, Twenty-second infantry, of a reservation for the Arickaree, Gros Ventre, and Mandan Indians, and respectfully recommend that the lands included within the boundary lines of said reserve be set apart for those Indians by executive order, as indicated in the inclosed diagram of the same.

I have the honor to be, sir, your obedient servant,

J. D. COX,
Secretary.

The PRESIDENT.

WASHINGTON, D. C., April 12, 1870.

Let the lands indicated in the accompanying diagram be set apart as a reservation for the Arickaree, Gros Ventre, and Mandan Indians, as recommended in the letter of Secretary of the Interior of the 12th instant.

U. S. GRANT.

Old Winnebago Reserve.

USHER'S LANDING, DAK., July 1, 1863.

SIR: With this report I transmit a plat and field-notes of the surveys made for the Sioux and Winnebago reservations by Mr. Powers, and to which I desire to call your attention. * * * * *

The reservation for the Winnebago Indians is bounded as follows, to wit: Beginning at a point in the middle channel of the Missouri River where the western boundary of the Sioux of the Mississippi Reserve intersects the same; thence north and through the center of the stockade surrounding the agency buildings of the Sioux of the Mississippi and Winnebago Indians, and along said boundary line to the northwest corner of said Sioux Reserve; thence along the northern boundary of said Sioux Reserve 10 miles; thence due north 20 miles; thence due west to the middle channel of Medicine Knoll River; thence down said river to the middle channel of the Missouri River; thence down the said channel to the place of beginning. * * * *

Very respectfully, your obedient servant,

CLARK W. THOMPSON,
Superintendent of Indian Affairs.

Hon. WM. P. DOLE,
Commissioner Indian Affairs.

[See An. Rep. Ind. Office for 1863, page 313, and also Stats. at Large, vol. 15, p. 635.]

Santee Sioux Reserve.

DEPARTMENT OF THE INTERIOR,
OFFICE INDIAN AFFAIRS,
Washington, D. C., March 19, 1867.

To the SECRETARY OF THE INTERIOR,
Washington City:

As special commissioner, I have concluded a preliminary arrangement with the Santee Sioux, now at the mouth of the Niobrara, by which they consent to go into a reservation in the Territory of Dakota, and lying between the Big Sioux on the east and the James River on the west, and between the forty-fourth and forty-fifth parallels of latitude. This reservation is selected with the approbation of the governor of the Territory and the Delegate in Congress, as also the surveyor-general of the said Territory. I am informed that there are no white settlements within its limits, and no part of it has yet been surveyed by the United States. I would, therefore, request that an order be issued by the President to withdraw from market the lands embraced within the limits of the said reservation, so as to keep the whites from attempting any settlement within it. This, I am informed, has been the practice in many similar cases. As it is important that the Indians should be removed as soon as possible, I would request that this order be issued immediately.

I am, with great respect, your obedient servant,

LOUIS V. BOGY,
Special Commissioner.

P. S.—I hand you a letter from General Tripp, surveyor-general of Dakota, recommending the withdrawal of this land from market.

DEPARTMENT OF THE INTERIOR,
March 20, 1867.

I respectfully lay before the President the proposition of Special Commissioner Bogy, as herein contained, and recommend that the lands described be withdrawn from market.

O. H. BROWNING,
Secretary.

Let the lands be withdrawn as recommended.

ANDREW JOHNSON.

MARCH 20, 1867.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
Washington, D. C., July 6, 1869.

SIR: I have the honor to transmit herewith a letter from the Commissioner of the General Land Office, dated the 2d ultimo, asking information relative to the Santee Sioux Indian Reservation, situated between the Big Sioux and James Rivers, and between the forty-fourth and forty-fifth parallels of north latitude, in Dakota Territory, and suggesting that if those lands are no longer occupied by Indians, necessary steps should be taken to restore them to the public domain.

This office has informally obtained from the General Land Office the inclosed copy of a letter and indorsements, by which it appears that Louis V. Bogy, as a special commissioner, selected the above-described reservation, and that upon the recommendation of Hon. O. H. Browning, then Secretary of the Interior, the said lands were withdrawn from market by order of the President, dated March 20, 1867.

The Santee Sioux Indians have never occupied this reservation. They have a reservation on the Niobrara River in Nebraska, where I deem it proper they should remain. It is not practicable for them to be located upon the reserve above described.

I therefore respectfully recommend that the order of the President withdrawing the above-described lands from market may be rescinded.

Please return the accompanying papers.

Very respectfully, your obedient servant,

E. S. PARKER,
Commissioner.

Hon. J. D. Cox,
Secretary of the Interior.

DEPARTMENT OF THE INTERIOR,
July 10, 1869.

The proposition of the Commissioner of Indian Affairs is approved, and I respectfully recommend that the lands withheld be restored to market.

J. D. COX,
Secretary.

EXECUTIVE MANSION, *July 13, 1869.*

I hereby rescind the executive order of March 20, 1867, referred to, and direct the restoration of the lands withheld, to market.

U. S. GRANT.

Sioux Reserve.

EXECUTIVE MANSION, *January 11, 1875.*

It is hereby ordered that the tract of country in the Territory of Dakota lying within the following-described boundaries, viz: Commencing on the east bank of the Missouri River where the forty-sixth parallel of north latitude crosses the same; thence east with said parallel of latitude to the ninety-ninth degree of west longitude; thence south with said degree of longitude to the east bank of the Missouri River; thence up and with the east bank of said river to the place of beginning, be, and the same hereby is, withdrawn from sale and set apart for the use of the several tribes of Sioux Indians, as an addition to their present reservation in said Territory.

U. S. GRANT.

EXECUTIVE MANSION, *March 16, 1875.*

It is hereby ordered that the tract of country in the Territory of Dakota lying within the following-described boundaries, viz: Commencing at a point where the 102d degree of west longitude intersects the 46th parallel of north latitude; thence north on said 102d degree of longitude to the south bank of the Cannon Ball River; thence down and with the south bank of said river to a point on the east side of the Missouri River, opposite the mouth of said Cannon-Ball River; thence down and with the east bank of the Missouri River to the mouth of Beaver River; thence up and with the south bank of Beaver River to the 100th degree of west longitude; thence south with said 100th degree of longitude to the 46th parallel of latitude; thence west with said parallel of latitude to the place of beginning, be, and the same hereby is, withdrawn from sale and set apart for the use of the several tribes of Sioux Indians, as an addition to their present reservation in said Territory.

U. S. GRANT.

EXECUTIVE MANSION, *May 20, 1875.*

It is hereby ordered that that portion of the public domain in the Territory of Dakota lying south of an east and west line from the northwest corner of the Yankton Indian Reservation to the ninety-ninth degree of longitude, and between said longitude and the Missouri River on the west and the Yankton Indian Reservation on the east, be, and the same hereby is, withdrawn from sale and settlement, and set apart for the use of the several tribes of Sioux Indians as an addition to their present reservation in said Territory.

U. S. GRANT.

EXECUTIVE MANSION, *November 28, 1876.*

It is hereby ordered that the tract of country in the Territory of Dakota on the east side of the Missouri River, lying within the following boundaries, viz: Commencing at a point on the south bank of Beaver River, intersected by the one hundredth degree of west longitude; thence in a direct line to the east corner of the Fort Rice Military Reservation; thence in a southwestern direction along the said military reservation to the east bank of the Missouri River; thence with the east bank of the Missouri to the mouth of Beaver River; thence up and with the south bank of Beaver River to the place of beginning, be, and the same hereby is, withdrawn from sale and set apart for the use of the several tribes of Sioux Indians as an addition to their present reservation in said Territory.

U. S. GRANT.

IDAHO.

Cœur d'Aléne Reserve and Fort Hall Reserve.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
May 23, 1867.

SIR: Under date October 1, 1866, Governor Ballard, of Idaho, was instructed to select and report to this office reservations for the use of the Boise and Bruneau bands of Shoshones, in the southern part, and for the Cœur d'Alénes and other Indians, in the northern part of that Territory. These instructions were based upon statements contained in the annual report of Governor Ballard, printed at pages 191 and 192 of the annual report of this office for 1866. There are no treaties existing with either of the tribes or bands named, nor, so far as the Shoshones are concerned, have they any such complete tribal organization as would justify treaties with them, even if such arrangements were practicable under the force of recent legislation by Congress. The northern tribes have a better organization, but advices from the executive indicate that while a necessity exists for some arrangement under which the Indians of all the bands referred to should have some fixed home set apart for them before the lands are all occupied by the whites, who are rapidly prospecting the country, such arrangements can now be made by the direct action of the department.

I herewith transmit two reports of Governor Ballard, describing tracts proposed to be set apart for these Indians. So far as the one intended for the Shoshones is concerned, its location as a permanent home for those bands is dependent upon the consent of Washakee's band, commonly known and heretofore treated with as the eastern bands Shoshones; but there is no doubt of their ready acquiescence in the arrangement. The land referred to is within the limits acknowledged as their hunting range by the treaty of 1863. Believing that the interests of the government, as well as that of the Indians, require that such action should be taken, I recommend that the President be requested to set apart the reservations described in the diagram herewith for the use of the Indians referred to, and that the General Land Office be directed to respect the boundaries thus defined.

Should the suggestions herein contained be approved and favorable action had, this office will inform the governor and superintendent of Indian affairs of the fact, and direct such further measures as to carry the plan into operation without delay, so far as the means at the disposal of the department will permit.

Very respectfully, your obedient servant,

N. G. TAYLOR,
Commissioner.

Hon. O. H. BROWNING,
Secretary of the Interior.

DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,
June 6, 1867.

SIR: I have the honor to acknowledge the receipt of your communication of the 27th ultimo, transmitting one from the Commissioner of Indian Affairs of the 23d May last, with accompanying documents, relating to proposed Indian reservations in Idaho Territory; and in obedience to your directions that I examine and report upon the subject-matter, I have to state as follows:

The suggestion of the Commissioner of Indian Affairs in reference to the reservations proposed for the Boise and Bruneau bands of Shoshones in the southern part of Idaho, and for the Cœur d'Alènes and other Indians in the northern part of that Territory, is that the same may be set apart by the President for those Indians as their home reservations to the extent as represented on the accompanying diagrams, herewith, and transferred on a map of Idaho accompanying this letter, being there represented in *green* and *blue* shadings respectively.

The boundaries as defined by the local Indian agents, as per separate diagrams of the above reservations, are:

1st. The Boise and Bruneau bands of Shoshones and Bannock Reservation: "Commencing on the south bank of Snake River at the junction of the Port Neuf River with said Snake River; thence south 25 miles to the summit of the mountains dividing the waters of Bear River from those of Snake River; thence easterly along the summit of said range of mountains 70 miles to a point where Sublette road crosses said divide; thence north about 50 miles to Blackfoot River; thence down said stream to its junction with Snake River; thence down Snake River to the place of beginning," embracing about 1,800,000 acres, and comprehending Fort Hall on the Snake River within its limits.

2d. The Cœur d'Alènes and other tribes of Northern Idaho, the proposed reservation for which is shown on the map of Idaho, herewith, in blue color, is represented to be about 20 miles square: "Commencing at the head of the Latah, about six miles above the crossing on the Lewiston trail, a road to the Spokane Bridge; thence running north-northeasterly to the Saint Joseph River, the site of the old Cœur d'Alène mission; thence west to the boundary line of Washington and Idaho Territories; thence south to a point due west of the place of beginning; thence east to place of beginning," including about 250,000 acres.

I have to observe that no surveys of the public lands have been made in those portions of Idaho Territory, nor is this office advised of the extinguishment of Indian titles to the same guaranteed to them by the provisions of the first and seventeenth sections of an "Act to provide a temporary government for the Territory of Idaho," approved March 3, 1863. (U. S. Stats., volume 12, pages 809 and 814.)

The records of this office showing no objection to the policy recommended to the department by the Commissioner of Indian Affairs in his communication of the 23d ultimo, I have the honor to return the same to the department, together with the papers accompanying the same.

I have the honor to be, very respectfully, your obedient servant,

JOS. S. WILSON,
Commissioner.

Hon. W. T. OTTO,
Acting Secretary of the Interior.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., June 13, 1867.

SIR: I submit herewith the papers that accompanied the inclosed report of the Commissioner of Indian Affairs, of the 23d ultimo, in relation to the propriety of selecting reservations in Idaho Territory, upon which to locate the Cœur d'Alènes and other Indians in the northern part of Idaho, and the Boise and Bruneau bands of Shoshones in the southern part of that Territory.

This department concurs in the recommendation of the Commissioner of Indian Affairs, that the lands indicated upon the annexed diagram, and defined in the accompanying report of the Commissioner of the General Land Office, of the 6th instant, be set apart as reservations for the Indians referred to, and I have the honor to request, if it meet your approval, that you make the requisite order in the premises.

With great respect, your obedient servant,

W. T. OTTO,
Acting Secretary.

The PRESIDENT.

WASHINGTON, D. C.,
June 14, 1867.

Let the lands be set apart as reservations for the Indians within named, as recommended by the Acting Secretary of the Interior.

ANDREW JOHNSON.

Cœur d'Alène Reserve.

EXECUTIVE MANSION, November 8, 1873.

It is hereby ordered that the following tract of country in the Territory of Idaho be, and the same is hereby, withdrawn from sale and set apart as a reservation for the Cœur d'Alène Indians, in said Territory, viz:

"Beginning at a point on the top of the dividing ridge between Pine and Latah (or Hangman's) Creeks, directly south of a point on said last-named creek, six miles above the point where the trail from Lewiston to Spokane bridge crosses said creek; thence in a northeasterly direction in a direct line to the Cœur d'Alène Mission, on the Cœur d'Alène River (but not to include the lands of said mission); thence in a westerly direction, in a direct line, to the point where the Spokane River heads in, or leaves the Cœur d'Alène Lakes; thence down along the center of the channel of said Spokane River to the dividing line between the Territories of Idaho and Washington, as established by the act of Congress organizing a territorial government for the Territory of Idaho; thence south along said dividing line to the top of the dividing ridge between Pine and Latah (or Hangman's) Creek; thence along the top of the said ridge to the place of beginning."

U. S. GRANT.

Fort Hall reserve.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
July 23, 1869.

SIR: I have the honor to submit herewith a letter from Charles F. Powell, special United States Indian agent, Fort Hall Agency, Idaho Territory, dated the 30th ultimo, which letter was forwarded to this office, with indorsement dated the 6th instant, by Hon. D. W. Ballard, governor and ex-officio superintendent of Indian affairs for said Territory, and would respectfully call your attention to that portion of Agent Powell's letter relative to a selection of reservation for the Bannock Indians.

It is provided in the second article of the treaty concluded with the Eastern band of Shoshones and the Bannock tribe of Indians, July 3, 1868, that whenever the Bannocks desire a reservation to be set apart for their use, or whenever the President of the United States shall deem it advisable for them to be put upon a reservation, he shall cause a suitable one to be selected for them in their present country, which shall embrace reasonable portions of the Port Neuf and "Kansas prairie" countries, and that when the reservation is declared, the United States will secure to the Bannocks the same rights and privileges therein and make the same and like expenditures therein for their benefit, except the agency house and residence of agent, in proportion to their numbers, as herein provided for the Shoshone reservation.

By virtue of executive order, dated June 14, 1867 (herewith inclosed), there was set apart a reservation for the Indians in Southern Idaho, including the Bannocks. This reserve, it will be observed from the diagram accompanying said executive order, embraces a portion of the country which the treaty provision above quoted provides the reservation for the Bannocks shall be selected from. It appears from the letter of Agent Powell that the Bannocks are at present upon the reserve set apart by executive order as above stated, and that they desire to remain there. I think the area embraced within this reserve is sufficient for the Bannocks and any other Indians that it may be desired to locate thereon. I therefore respectfully recommend that the same be designated as the reserve provided for in the treaty of July 3, 1868, as hereinbefore recited, and that the President be requested to so direct.

Very respectfully, your obedient servant,

E. S. PARKER,
Commissioner.

Hon. J. D. Cox.
Secretary of the Interior

DEPARTMENT OF THE INTERIOR,
Washington, D. C., July 29, 1869.

SIR: I have the honor to submit herewith a communication from the Commissioner of Indian Affairs, dated the 23d instant, and accompanying papers, relative to the desig-

nation of a reservation in Idaho for the Bannock Indians, as provided by the second article of the treaty of July 3, 1868, with that tribe, and for the reasons stated by the Commissioner, respectfully recommend that you direct that the lands reserved by an executive order dated June 14, 1867, for the Indians of Southern Idaho, including the Bannocks, be designated as the reservation provided for said tribe by the second article of the treaty referred to, dated July 3, 1868.

With great respect, your obedient servant,

J. D. COX,
Secretary.

EXECUTIVE MANSION, *July 30, 1869.*

The within recommendation of the Secretary of the Interior is hereby approved, and within the limits of the tract reserved by executive order of June 14, 1867, for the Indians of Southern Idaho, will be designated a reservation provided for the Bannocks by the second article of the treaty with said tribe of 3d July, 1868.

U. S. GRANT.

Lemhi Reserve.

EXECUTIVE MANSION, *February 12, 1875.*

It is hereby ordered that the tract of country in the Territory of Idaho, lying within the following-described boundaries, viz: Commencing at a point on the Lemhi River that is due west of a point one mile due south of Fort Lemhi; thence due east, about three miles, to the crest of the mountain; thence with said mountain in a southerly direction about twelve miles to a point due east of Yeanun bridge, on the Lemhi River; thence west across said bridge and Lemhi River to the crest of the mountain on the west side of river; thence with said mountain in a northerly direction to a point due west of the place of beginning; thence due east to the place of beginning, be, and the same hereby is, withdrawn from sale and set apart for the exclusive use of the mixed tribes of Shoshone, Bannock, and Sheepeater Indians, to be known as the Lemhi Valley Indian Reservation.

Said tract of country is estimated to contain about one hundred square miles, and is in lieu of the tract provided for in the third article of an unratified treaty made and concluded at Virginia City, Montana Territory, on the 24th of September, 1868.

U. S. GRANT.

INDIAN TERRITORY.

Cheyenne and Arapaho Reserve.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
June 19, 1869.

SIR: I have the honor to acknowledge the receipt, by reference from the Secretary of the Interior on the 10th instant, of a letter from Adjutant-General E. D. Townsend, bearing date the 9th instant, inclosing a copy of a telegram dated Fort Leavenworth, Kans., June 8, 1869, from Maj. Gen. J. M. Schofield to General W. T. Sherman, recommending that the reservation for the Arapahoe Indians be changed from its present location to the North Fork of the Canadian River, and requesting a report thereon from this office.

By the terms of the treaty with the Cheyenne and Arapahoe tribes of Indians, proclaimed August 19, 1868, it is provided in the second article thereof that "the United States agrees that the following district of country, to wit: Commencing at the point where the Arkansas River crosses the thirty-seventh parallel of north latitude; thence west on said parallel—the said line being the southern boundary of the State of Kansas—to the Cimarron River (sometimes called the Red Fork of the Arkansas River); thence down said Cimarron River, in the middle of the main channel thereof, to the Arkansas River; thence up the Arkansas River, in the middle of the main channel thereof, to the place of beginning, shall be, and the same is hereby, set apart for the absolute and undisturbed use and occupation of the Indians herein named, and for such other friendly tribes or individual Indians as from time to time they may be willing, with the consent of the United States, to admit among them."

It will be seen from the language of the second article of said treaty, just quoted, that a reservation upon which they are now located has already been provided for said Indians within the boundaries in said article designated, but I am of opinion that it would be better for both the Indians and the government if they were to be removed to the North Fork of the Canadian River in accordance with the suggestions of General Schofield, provided any authority can be found for removing and locating said Indians in the manner contemplated.

Should you be of opinion that such authority exists, and determine in pursuance thereof to cause a removal of said Indians to be made from their present reservation, I would suggest that a tract of country be set aside for their occupation and use bounded as follows, viz: Commencing at the point where the Washita River crosses the ninety-eighth degree of west longitude; thence north on a line with said ninety-eighth degree to the point where it is crossed by the Red Fork of the Arkansas (sometimes called the Cimarron River); thence up said river, in the middle of the main channel thereof, to the north boundary of the country ceded to the United States by the treaty of June 14, 1866, with the Creek Nation of Indians; thence west on said north boundary and the north boundary of the country ceded to the United States by the treaty of March 21, 1866, with the Seminole Indians, to the one hundredth degree of west longitude; thence south on the line of said one hundredth degree to the north boundary of the country set apart for the Kiowas and Comanches by the second article of the treaty concluded October 21, 1867, with said tribes; thence east along said boundary to the point where it strikes the Washita River; thence down said Washita River, in the middle of the main channel thereof, to the place of beginning.

The territory comprised within the boundaries last above designated contains a small portion of the country ceded to the United States by the terms of the treaty with the Creek Indians concluded June 14, 1866; a portion of the country ceded to the United States by the terms of the treaty with the Seminole Indians concluded March 21, 1866, and the remainder is composed of a portion of what is commonly known as the "leased country."

Inasmuch as this office has no information upon the subject, except that conveyed by the telegram of General Schofield, which is very meager and indefinite, I am unable to determine the causes which seem to require this change, and I would therefore respectfully suggest, unless there is some pressing necessity which will admit of no delay, whether it would not be well to refer the matter to the proper officers of this bureau for investigation and report before any action is taken.

The letter of Adjutant-General Townsend, together with the copy of the telegram of General Schofield, are herewith returned.

Very respectfully, &c.,

E. S. PARKER,
Commissioner.

Hon. W. T. OTTO,
Acting Secretary of the Interior.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
Washington, D. C., August 10, 1869.

SIR: Referring to my report to you of the 19th of June last, relative to the change of location of the reservation for the Cheyenne and Arapahoe Indians, I now have the honor to submit, herewith, copies of the following letters relative to this subject, viz:

Letter from Superintendent Hoag, dated the 31st ultimo, inclosing letter from Brevet Major-General Hazen, dated the 24th ultimo.

Letter from Superintendent Hoag, dated the 4th instant, inclosing letter from General Hazen, dated the 2d instant.

It appears from these letters that the Cheyennes and Arapahoes did not understand the location of the reservation as defined by the treaty of August 19, 1868; that they have never been upon said reserve, and do not desire to go there, but that they desire to locate on the North Fork of the Canadian some 60 miles below Camp Supply; that the agent for these tribes has a large quantity of valuable stores in this locality, which are very much exposed.

Inasmuch as these Indians express a desire to be located upon a reserve, I think it very desirable that their wishes should be gratified, and that they be not permitted to again roam on the plains. I therefore respectfully recommend that the President be requested to authorize the location of these Indians on the North Fork of the Canadian River, where they desire to go, and that immediate steps be taken to provide temporarily for them there. The country desired by them is public land, and I think it competent for the President to direct their location thereon. In view, however, of the fact that these Indians have a reservation defined for them by treaty stipulation, legislation can be asked of Congress at the coming session to insure a permanent reservation for

them where they may locate, and abandon as a reservation the present one, restoring it to the public lands.

Very respectfully, your obedient servant,

E. S. PARKER,
Commissioner.

Hon. J. D. Cox,
Secretary of the Interior.

AUGUST 10, 1869.

The recommendation of the Indian Commissioner approved.

J. D. COX,
Secretary.

Approved August 10, 1869.

U. S. GRANT,
President.

Osage Reserve.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., March 27, 1871.

SIR: I have received your letters bearing date respectively the 7th, 11th, and 15th instant, in relation to the settlement of the Great and Little Osage Indians upon a tract of land to be assigned them within the Cherokee country. * * *

I concur in your recommendation that there be assigned and set off to the Great and Little Osages a tract situate within the Cherokee country described as follows: Beginning at a point where the ninety-sixth meridian of longitude west from Greenwich intersects the southern boundary of Kansas; thence south along said meridian to the line separating the Cherokee country from the creek country; thence westward on said line to a point so that a line running from such point, parallel to said meridian, to the said boundary of Kansas, and with said boundary to the place of beginning, will inclose an area containing 560,000 acres. * * *

Very respectfully, your obedient servant,

C. DELANO,
Secretary.

The COMMISSIONER OF INDIAN AFFAIRS.

MICHIGAN.

Isabella Reserve.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS.
December 11, 1854.

SIR: I inclose a copy of a letter from Messrs. George Smith and P. O. Johnson, missionaries of the Methodist Episcopal Church in Michigan, addressed to Rev. Dr. Durbin, and by him forwarded to this office, in relation to certain desired reservations of public lands.

In consideration of certain contemplated arrangements with the Indians in Michigan during the ensuing spring, I have to ask that you reserve from public sale the lands designated in the letter of Messrs. Smith and Johnson.

I have also received a communication from the Rev. I. P. Durbin, corresponding secretary of the Missionary Society of the Methodist Episcopal Church, asking for an additional reservation of lands near Iroquois Point, back from the lake.

For the reasons above, I concur in the request, and ask that several additional sections to those already reserved be made of the lands in the vicinity of Iroquois Point.

Very respectfully, your obedient servant,

GEO. W. MANYPENNY,
Commissioner.

JOHN WILSON, Esq.,
Commissioner of General Land Office.

GENERAL LAND OFFICE,
December 20, 1854.

SIR: I have the honor to transmit a communication from the Commissioner of Indian Affairs, addressed to this office, bearing date the 11th instant, and its inclosure, recommending, for reasons stated, the withdrawal from market and reservation for Indian

purposes the lands in Isabella County, Michigan, or so much thereof as may be deemed expedient.

The pink-shaded lines on the inclosed printed map show the limits of Isabella County, covering, according to the maps of this office, townships 13, 14, 15, and 16 north, of ranges 3, 4, 5, and 6 west of the Michigan meridian, in the Ionia district, the whole of which are requested to be reserved, and the numbers 1, 2, 3, 4, 5, 6, placed on certain townships, show the order of the preference to be given should it be determined to reserve less than the east half of the county.

From an estimate just made at this office, it appears that only about two-ninths of the whole surface has been disposed of, although three of the townships have been in market since 1833, and the balance since 1840.

As regards the conditions mentioned in the Rev. George Smith's letter (among the papers), that the reserve be made "for the Chippewa Indians of Michigan, to be purchased under the direction of the missionary society," &c., I have to remark that no such privilege could, in my opinion, be given without legislation of Congress.

I am, very respectfully, your obedient servant,

JOHN WILSON,
Commissioner.

Hon. ROBERT McCLELLAND,
Secretary of the Interior.

DEPARTMENT OF THE INTERIOR,
April 12, 1855.

SIR: I have the honor to submit herewith two letters from the Commissioner of the General Land Office in relation to the withdrawal of certain lands in Michigan from sale with a view to the benefit hereafter of certain Indian tribes, in accordance with the intimations of the Indian Office.

The first letter, that of the 20th December last, has reference to lands in Isabella County, Michigan, and that of the 10th instant, to land in a new county called Emmett, in the same State, the former county containing 16 and the latter 27 townships and fractional townships, and the withdrawal appears to be desired by the Indian Office "in consequence of certain contemplated arrangements with the Indians in Michigan during the present spring." The matter connected with the letter of the 20th December has been delayed waiting more specific information from the Indian Office as to the specific land wanted, which is supplied by this letter of the 10th instant from that office.

The philanthropic policy of furnishing these Indians, who are desirous of becoming cultivators of the soil, with land for that purpose, to the greatest possible extent separated from evil example or annoyance of unprincipled whites, who might be disposed to settle in their vicinity, or within their midst, after farms already opened by them had rendered the surrounding land more valuable, is apparent, and I have no hesitation in recommending your sanction to the withdrawal of the lands indicated in each of said communications from the Land Office, but it must be with the express understanding that no peculiar or exclusive claim to any of the land so withdrawn can be acquired by said Indians, for whose future benefit it is understood to be made, until after they shall by future legislation be invested with the legal title thereto.

With much respect, your obedient servant,

R. McCLELLAND,
Secretary.

The PRESIDENT OF THE UNITED STATES.

[Indorsement.]

MAY 14, 1855.

Let the withdrawal of all the vacant land in Isabella County be made with the express understanding contained in the letter of the Secretary of the Interior to me of the 12th instant.

FRANKLIN PIERCE.

Ontonagon Reserve.

GENERAL LAND OFFICE,
September 24, 1855.

SIR: I have the honor to submit herewith a communication from the Commissioner of Indian Affairs, of the 20th instant, requesting that the following-described tracts be withdrawn from market and reserved for the Ontonagon Band of Chippewa Indians under the sixth clause of the first article of the treaty of La Pointe of July 30, 1854, viz: Lots Nos. 1, 2, 3, and 4 of section 14, township 53 north, range 38 west Michigan meridian; lots Nos. 1, 2, 3, and 4 of section 15, township 53 north, range 38 west, Michigan meridian; southwest quarter, and southwest quarter of southeast quarter of section 15, township 53 north, range 38 west, Michigan meridian; the whole of sections 22 and

23, township 53 north, range 38 west, Michigan meridian; north half section 26, township 53 north, range 38 west, Michigan meridian; north half section 27, township 53 north, range 38 west, Michigan meridian; all situated in the northern peninsula of Michigan.

On examination of the plats and tract-books in this office it appears that the above lands are all vacant and there exists no objection to their reservation; for which I respectfully recommend that the order of the President be obtained previous to instructing the land officers.

I am, very respectfully, your obedient servant,

THOS. A. HENDRICKS,
Commissioner.

Hon. ROBERT McCLELLAND,
Secretary of the Interior.

DEPARTMENT OF THE INTERIOR,
September 25, 1855.

Respectfully submitted to the President for his approval as recommended.

R. McCLELLAND,
Secretary.

SEPTEMBER 25, 1855.

Let the reservation be made.

FRANKLIN PIERCE.

MINNESOTA.

Leech Lake Reserve.

EXECUTIVE MANSION, November 4, 1873.

It is hereby ordered that the description of the first-named tract of country reserved for the use of the Pillager and Lake Winnebagoish bands, and provided for in the second clause of the second article of the treaty with the Mississippi bands of Chippewa Indians, concluded February 22, 1855 (Stats. at Large, vol. 10, p. 1166), be amended so as to read as follows:

Beginning at the mouth of Little Bay River; thence up said river through the first lake to the southern extremity of the second lake on said river; thence in a direct line to the most southern point of Leech Lake, and thence through said lake, so as to include all the islands therein, to the place of beginning; and that the additional land therein embraced be withdrawn from sale, entry, or other disposition, and that the same be set apart for the use of said Indians.

U. S. GRANT.

Leech Lake and Winnebagoish Reserves.

EXECUTIVE MANSION, May 26, 1874.

It is hereby ordered that there be withdrawn from sale, entry, or other disposition so much of the following tracts of country as are not already covered by treaty with the Chippewas, concluded February 22, 1855, and set apart for the use of the Pillager and Lake Winnebagoish bands of said Indians, viz:

Commencing at the point where the Mississippi River leaves Lake Winnebagoish, it being the beginning point of the second tract of land reserved for said bands (Stats. at Large, vol. 10, p. 1166); thence northeasterly to the point where the range line between ranges 25 and 26 west intersects the township line between townships 146 and 147 north; thence north on said range line to the twelfth standard parallel; thence west on said parallel to range line between ranges 28 and 29; thence south on said range line till it intersects the third river; thence down said river to its mouth; thence in a direct line to the place of beginning. Also, all the land embraced in township 143 north, range 29 west, in the State of Minnesota.

U. S. GRANT.

Winnebagoish Reserve,

EXECUTIVE MANSION, October 29, 1873.

It is hereby ordered that there be withdrawn from sale, entry, or other disposition, as an addition to the reservation provided for by the first article of the treaty with the Chippewas of the Mississippi, concluded March 19, 1867 (Stats. at Large, vol. 16, p. 719),

for the use of the said Indians, a tract of country in the State of Minnesota, described and bounded as follows, viz:

Commencing at a point on the present eastern boundary of said Leech Lake Indian Reserve, where the section line between sections 11 and 14, and 10 and 15, of township 55 north, range 27 west of the fourth principal meridian, if extended west, would intersect the same; thence east on said extended section line to section corner between sections 11, 12, 13, and 14; thence north on the section line between sections 11 and 12, and 1 and 2, all of the same township and range above mentioned, to the township line between townships 55 and 56 north; thence continuing north to a point two miles north of said township line; thence west to the present eastern boundary of said Leech Lake Reserve; thence south on said boundary line, and with the same, to the place of beginning.

U. S. GRANT.

MONTANA.

Blackfeet Reserve.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
July 2, 1873.

The above diagram is intended to show a proposed reservation for the Gros Ventre, Piegan, Blood, Blackfeet, River Crow, and other Indians in the Territory of Montana. Said proposed reservation is indicated on the diagram by yellow colors, and is described as follows, viz:

Commencing at the northwest corner of the Territory of Dakota, being the intersection of the forty-ninth parallel of north latitude and the one hundred and fourth meridian of west longitude; thence south to the south bank of the Missouri River; thence up and along the south bank of said river to a point opposite the mouth of Medicine or Sun River; thence in a westerly direction, following the south bank of said Medicine or Sun River, as far as practicable, to the summit of the main chain of the Rocky Mountains; thence along said summit in a northerly direction to the north boundary of Montana; thence along said north boundary to the place of beginning, excepting and reserving therefrom existing military reservations.

I respectfully recommend that the President be requested to order that the lands comprised within the above-described limits be withheld from entry and settlement as public lands, and that the same be set apart as an Indian reservation, as indicated in my report to the department of this date.

EDWARD P. SMITH,
Commissioner.

DEPARTMENT OF THE INTERIOR,
July 3, 1873.

Respectfully presented to the President, with the recommendation that he make the order above proposed by the Commissioner of Indian Affairs.

W. H. SMITH,
Acting Secretary.

EXECUTIVE MANSION, July 5, 1873.

It is hereby ordered that the tract of country above described be withheld from entry and settlement as public lands, and that the same be set apart as a reservation for the Gros Ventre, Piegan, Blood, Blackfeet, River Crow, and other Indians, as recommended by the Secretary of the Interior and Commissioner of Indian Affairs.

U. S. GRANT.

EXECUTIVE MANSION, August 19, 1874.

It is hereby ordered that all that tract of country, in Montana Territory, set apart by executive order, dated July 5, 1873, and not embraced within the tract set apart by act of Congress, approved April 15, 1874, for the use and occupation of the Gros Ventre, Piegan, Blood, Blackfeet, River Crow, and other Indians, comprised within the following boundaries, viz:

Commencing at a point on the south bank of the Missouri River, opposite the mouth of the Marias River; thence along the main channel of the Marias River to Birch Creek; thence up the main channel of Birch Creek to its source; thence west to the

summit of the main chain of the Rocky Mountains; thence along said summit in a southerly direction to a point opposite the source of the Medicine or Sun River; thence easterly to said source and down the south bank of said Medicine or Sun River to the south bank of the Missouri River; thence down the south bank of the Missouri River to the place of beginning, be, and the same is hereby, restored to the public domain.

U. S. GRANT.

EXECUTIVE MANSION, *April 13, 1875.*

It is hereby ordered that the tract of country in the Territory of Montana, lying within the following-described boundaries, viz:

Commencing at a point on the Musselshell River where the same is intersected by the forty-seventh parallel of north latitude; thence east with said parallel to the south bank of the Yellowstone River; thence down and with the south bank of said river to the south boundary of the military reservation at Fort Buford; thence west along the south boundary of said military reservation to its western boundary; thence north along said western boundary to the south bank of the Missouri River; thence up and with the south bank of said river to the mouth of the Musselshell River; thence up the middle of the main channel of said Musselshell River to the place of beginning, be, and the same hereby is, withdrawn from sale, and set apart as an addition to the present reservation for the Gros Ventres, Piegan, Blood, Blackfeet, and Crow Indians.

U. S. GRANT.

Crow Reserve.

EXECUTIVE MANSION, *January 31, 1874.*

It is hereby ordered that the following-described tract of country in the Territory of Montana, set apart as a reservation for the Crow tribe of Indians by the first article of an agreement concluded with the said Indians August 16, 1873, subject to the action of Congress, be, and the same is hereby, withdrawn from sale and settlement, viz:

Commencing at a point on the Missouri River opposite to the mouth of Shankin Creek; thence up the said creek to its head, and thence along the summit of the divide between the waters of Arrow and Judith Rivers and the waters entering the Missouri River to a point opposite to the divide between the headwaters of the Judith River and the waters of the Musselshell River; thence along said divide to the Snowy Mountains, and along the summit of said Snowy Mountains, in a northeasterly direction, to a point nearest the divide between the waters which run easterly to the Musselshell River and the waters running to the Judith River; thence northwardly along said divide to the divide between the headwaters of the Armell's Creek and the headwaters of Dog River, and along said divide to the Missouri River; thence up the middle of said river to the place of beginning (the said boundaries being intended to include all the country drained by the Judith River, Arrow River, and Dog River).

U. S. GRANT.

EXECUTIVE MANSION, *October 20, 1875.*

It is hereby ordered that the tract of country, twenty miles in width, in the Territory of Montana, lying within the following-described boundaries, viz: Commencing at a point in the mid-channel of the Yellowstone River, where the 107th degree of west longitude crosses the said river; thence up said mid-channel of the Yellowstone to the mouth of Big-Timber Creek; thence up said creek twenty miles, if the said creek can be followed that distance, if not, then in the same direction, continued from the source thereof to a point twenty miles from the mouth of said creek; thence eastwardly along a line parallel to the Yellowstone, no point of which shall be less than twenty miles from the river, to the 107th degree of west longitude; thence south to the place of beginning, be, and the same hereby is, withdrawn from sale, and set apart for the use of the Crow tribe of Indians, as an addition to their present reservation in said Territory, set apart in the second article of treaty of May 7, 1868. (Stats. at Large, vol. 15, p. 650.) Provided that the same shall not interfere with the rights of any *bona-fide* settlers who may have located on the tract of country herein described.

U. S. GRANT.

*Crow Reserve.*EXECUTIVE MANSION, *March 8, 1876.*

By an executive order dated October 20, 1875, the following-described tract of country situated in Montana Territory was withdrawn from public sale and set apart for the use of the Crow tribe of Indians in said Territory, to be added to their reservations, viz: Commencing at a point in the mid-channel of the Yellowstone River, where the 107th degree of west longitude crosses the said river; thence up said mid-channel of the Yellowstone to the mouth of Big-Timber Creek; thence up said creek twenty miles, if the said creek can be followed that distance; if not, then in the same direction continued from the source thereof to a point twenty miles from the mouth of said creek; thence eastwardly along a line parallel to the Yellowstone, no point of which shall be less than twenty miles from the river, to the 107th degree of west longitude; thence south to the place of beginning.

The said executive order of October 20, 1875, above noted, is hereby revoked, and the tract of land therein described is again restored to the public domain.

U. S. GRANT.

*Judith Basin Reserve.*EXECUTIVE MANSION, *March 25, 1875.*

By the first article of an agreement made by and between Felix R. Brunot, E. Wittlesey, and James Wright, commissioners in behalf of the United States, and the chiefs, headmen, and men, representing the tribe of Crow Indians, under date of August 16, 1873, the following-described tract of country was set apart, subject to ratification by Congress, as a reservation for the absolute and undisturbed use and occupation of the Indians herein named, viz: Commencing at a point on the Missouri River opposite to the mouth of Shankin Creek; thence up the said creek to its head, and thence along the summit of the divide between the waters of Arrow and Judith Rivers, and the waters entering the Missouri River, to a point opposite to the divide between the headwaters of the Judith River and the waters of the Muscleshell River; thence along said divide to the Snowy Mountains, and along the summit of said Snowy Mountains in a northeasterly direction to a point nearest to the divide between the waters which run easterly to the Muscleshell River and the waters running to the Judith River; thence northwardly along said divide to the divide between the headwaters of Armell's Creek and the headwaters of Dog River, and along said divide to the Missouri River; thence up the middle of said river to the place of beginning (the said boundaries being intended to include all the country drained by the Judith River, Arrow River, and Dog River). Pending its ratification by Congress, an order was issued January 31, 1874, withdrawing said tract of country from sale or settlement.

Inasmuch as these Indians have not removed to this country, and it is not probable that they will ever make it their home, and as Congress has not taken any decisive action on said agreement, it is ordered that the order of January 31, 1874, be, and hereby is, canceled, and said tract of country restored to the public domain.

U. S. GRANT.

NEBRASKA.

Niobrara Reserve.

DEPARTMENT OF THE INTERIOR,

Washington, D. C., February 26, 1866.

SIR: I have the honor to submit herewith a letter addressed to this department by the Commissioner of Indian Affairs, requesting the reservation from pre-emption or sale of townships 31 and 32 north, range 5 west, and townships 31 and 32 north, range 6 west of the sixth principal meridian, in Nebraska Territory, until the action of Congress be had, with a view to the setting apart of these townships as a reservation for the Santee Sioux Indians now at Crow Creek, Dakota; and recommend that you direct those lands to be withdrawn from market, and held in reserve for the purpose indicated.

I am, sir, very respectfully, your obedient servant,

JAMES HARLAN,
Secretary.

The PRESIDENT OF THE UNITED STATES.

EXECUTIVE MANSION, *February 27, 1866.*

Let the lands within named be withdrawn from market and reserved for the purposes indicated.

ANDREW JOHNSON,
President of the United States.

EXECUTIVE MANSION, *July 20, 1866.*

Let the townships embraced within the lines shaded *red* on the within diagram be, in addition to those heretofore withdrawn from sale by my order of 27th February last, reserved from sale and set apart as an Indian reservation for the use of Sioux Indians, as recommended by the Secretary of the Interior, in letter of July 19, 1866.

ANDREW JOHNSON,
President.

The above order embraces township 31 north, range 8 west; township 31 north, range 7 west; that portion of township 32 north, range 8 west, and of township 32 north, range 7 west, lying south of the Niobrara River, and that portion of township 35 north, range 5 west, lying south of the Missouri River in Nebraska. [For diagram, see letter from the Commissioner of the General Land Office, dated November 23, 1878.]

DEPARTMENT OF THE INTERIOR,
Washington, D. C., November 15, 1867.

SIR: For the reasons mentioned in the accompanying copies of reports from the Acting Commissioner of Indian Affairs, and the Commissioner of the General Land Office, dated, respectively, the 7th and 13th instant, I have the honor to recommend that you order the withdrawal from sale, and the setting apart for the use of the Santee Sioux Indians, the following-described tracts of land, lying adjacent to the present Sioux Indian Reservation on the Niobrara and Missouri Rivers in Nebraska, viz: Township 32 north, of range 4 west of the sixth principal meridian, and fractional section 7, fractional section 16, fractional section 17, and sections 18, 19, 20, 21, 28, 29, 30, 31, 32, and 33, of fractional township No. 33 north, of range 4 west of the sixth principal meridian, be withdrawn from market, and that fractional township No. 32 north, of range 6 west of the sixth principal meridian, now a portion of the reservation, be restored to market.

I am, sir, very respectfully, your obedient servant,

O. H. BROWNING,
Secretary.

The PRESIDENT.

NOVEMBER 16, 1867.

Let the within recommendations of the Secretary of the Interior be carried into effect.

ANDREW JOHNSON.

Niobrara Reserve.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
Washington, D. C., August 28, 1869.

SIR: I have the honor to call your attention to the inclosed copy of a letter from Superintendent Samuel M. Janney, dated the 20th instant, relative to the reservation of the Santee Sioux Indians in Nebraska.

The lands at present withdrawn from sale for the purpose of this reservation are as follows:

	Acres.
Township 32 north, range 4 west of sixth principal meridian.....	23,397.96
So much of the west half of fractional township 33 north, range 4 west, as lies south of the Missouri River.....	7,571.40
Township 31 north, range 5 west.....	22,968.64
Fractional township 32 north, range 5 west.....	21,601.41
So much of fractional township 33 north, range 5 west, as lies south of Missouri River	8,983.20
Fractional township 31 north, range 6 west.....	22,568.10

	Acres.
Fractional township 31 north, range 7 west.....	21,592.29
Fractional township 32 north, range 7 west.....	1,460.42
Fractional township 31 north, range 8 west.....	22,999.69
Fractional township 32 north, range 8 west.....	12,051.92

Making the total area of present reservation..... 165,195.03

The recommendation of Superintendent Janney, contained in his above-mentioned letter, is that the boundaries of the present reservation be changed as follows: That—

	Acres.
Township 31 north, range 4 west.....	22,968.61
So much of the east half of fractional township 33 north, range 4 west, as lies south of the Missouri River, viz, fractional sections 2, 3, 10, 11, 14, 15, section 22, fractional sections 23, 24, sections 25, 26, 27, 34, 35, 36.....	7,584.70

Total 30,553.31

be added to the present reservation, and that—

	Acres.
Fractional township 31 north, range 6 west.....	22,568.10
Fractional township 31 north, range 7 west.....	21,592.29
Fractional township 32 north, range 7 west.....	1,460.42
Fractional township 31 north, range 8 west.....	22,999.69
Fractional township 32 north, range 8 west.....	12,051.92

Total 80,672.42

be restored to market.

The additional lands which Superintendent Janney recommends to be added to the present reservation contain an area of 30,553.31 acres, and the lands which he recommends to be restored to market contain an area of 80,672.42 acres. The reservation, therefore, if readjusted in this manner, will contain a total area of 115,075.92 acres.

I am of opinion that this change should be made, and respectfully recommend, should you approve, that the President be requested to direct that township 31 north, range 4 west of the sixth principal meridian, and so much of the east half of fractional township 33 north, range 4 west, as lies south of the Missouri River, viz, fractional sections 2, 3, 10, 11, 14, 15, section 22, fractional sections 23, 24, sections 25, 26, 27, 34, 35, and 36, be withdrawn from market and added to the present reservation; and that fractional township 31 north, range 6 west of the sixth principal meridian; fractional township 31 north, range 7 west of the sixth principal meridian; fractional township 32 north, range 7 west of the sixth principal meridian; fractional township 31 north, range 8 west of the sixth principal meridian; fractional township 32 north, range 8 west of the sixth principal meridian, which is a portion of the land previously withdrawn from sale by the President's order of July 20, 1866, be restored to market, this being in accordance with the recommendation of Superintendent Janney, as above stated.

I transmit herewith a plat showing the boundaries of the present reservation, and the proposed changes of the same, which you will please to have returned to this office.

Very respectfully, your obedient servant,

E. S. PARKER,
Commissioner.

Hon. W. T. OTTO,
Acting Secretary of the Interior.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., August 31, 1869.

SIR: I have the honor to transmit herewith a report of the Commissioner of Indian Affairs of the 28th instant, and accompanying papers, in relation to proposed changes in the Santee Sioux Indian Reservation, as therein suggested, and respectfully recommend that the President order the restoration to market of certain lands designated in the Commissioner's report, and the withdrawal from sale of the lands therein described.

With great respect, your obedient servant,

J. D. COX,
Secretary.

WASHINGTON, August 31, 1869.

The within recommendation of the Secretary of the Interior is hereby approved, and the necessary action will be taken to carry it into effect.

U. S. GRANT.

NEVADA.

*Carlin Farms Reserve*EXECUTIVE MANSION, *May 10, 1877.*

It is hereby ordered that all that tract of country in the State of Nevada (known as the Carlin Farms) lying within the following boundaries, viz: Beginning at the quarter-section corner post on the west boundary of section 6, township 35 north, range 52 east, Mount Diablo meridian; thence south $62^{\circ} 56'$ east 4,229½ feet, to a post marked "U. S. I. R., station B"; thence north $2^{\circ} 4'$ east 1,928 feet, to a post marked "U. S. I. R., station C"; thence north $3^{\circ} 9'$ west 2,122 feet, to a post marked "U. S. I. R., station D"; thence south $85^{\circ} 8'$ west 3,000 feet, to a post marked "U. S. I. R., station E"; thence north $52^{\circ} 32'$ west 4,046 feet, to a post marked "U. S. I. R., station F"; thence north $39^{\circ} 25'$ west 1,200 feet, to a post marked "U. S. I. R., station G"; thence south $44^{\circ} 10'$ west 2,200 feet, to a post marked "U. S. I. R., station H"; thence south $44^{\circ} 29'$ east 2,663 feet, to a post marked "U. S. I. R., station I"; thence south $58^{\circ} 57'$ east 2,535 feet, to a post marked "U. S. I. R., station K"; thence south $59^{\circ} 29'$ east 878 feet, to a post marked "U. S. I. R., station A", the place of beginning, containing 521.61 acres, be, and the same hereby is, withdrawn from sale or settlement and set apart as a reservation for the Northwestern Shoshone Indians.

R. B. HAYES.

*Duck Valley Reserve.*EXECUTIVE MANSION, *April 16, 1877.*

It is hereby ordered that the following-described tract of country, situated partly in the Territory of Idaho and partly in the State of Nevada, be, and the same hereby is, withdrawn from the public domain, to wit: Commencing at the one hundredth mile-post of the survey of the north boundary of Nevada; thence due north to the intersection of the north boundary of township 16 south of Boise base-line in Idaho; thence due west to a point due north of the one hundred and twentieth mile-post of said survey of the north boundary of Nevada; thence due south to the ninth standard parallel north of the Mount Diablo base-line in Nevada; thence due east to a point due south of the place of beginning; thence north to the place of beginning. And the above-named tract of land is hereby set apart as a reservation for the Western Shoshone Indians, subject to such modifications of boundary as a location of limits shall determine.

R. B. HAYES.

*Moapa River Reserve.*EXECUTIVE MANSION, *March 12, 1873.*

Agreeably to the recommendation contained in the foregoing letter of the Secretary of the Interior of this day, the following-described lands in the southeastern part of Nevada are hereby set apart for the use of the Indians in that locality: Commencing at a point on the north bank of the Colorado River, where the eastern line of Nevada strikes the same; running thence due north with said eastern line to a point far enough north from which a line running due west will pass one mile north of Muddy Springs; running due west from said point to the one hundred and fifteenth meridian of west longitude; thence south with said meridian to a point due west from the place of beginning; thence due east to the west bank of the Colorado River; thence following the west and north bank of the same to the place of beginning.

U. S. GRANT.

EXECUTIVE MANSION, *February 12, 1874.*

In lieu of an executive order dated the 12th of March last, setting apart certain lands in Nevada as a reservation for the Indians of that locality, which order is hereby canceled, it is hereby ordered that there be withdrawn from sale or other disposition, and set apart for the use of the Pah-Ute and such other Indians as the department may see fit to locate thereon, the tract of country bounded and described as follows, viz:

Beginning at a point in the middle of the main channel of the Colorado River of the West, eight miles east of the one hundred and fourteenth degree of west lon-

gitude; thence due north to the thirty-seventh degree of north latitude; thence west with said parallel to a point 20 miles west of the one hundred and fifteenth degree of west longitude; thence due south 35 miles; thence due east 36 miles; thence due south to the middle of the main channel of the Colorado River of the West; thence up the middle of the main channel of said river to the place of beginning.
U. S. GRANT.

Pyramid Lake Reserve.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., March 21, 1874.

SIR: I have the honor to present herewith a communication dated the 20th instant from the Commissioner of Indian Affairs, together with the accompanying map showing the survey made by Eugene Munroe in January, 1865, of the Pyramid Lake Indian Reservation in Nevada, and respectfully recommend that the President issue an order withdrawing from sale or other disposition and setting apart said reservation or tract of country for the use and occupation of the Pah-Ute and other Indians now occupying the same.

The form of order necessary in the premises is engrossed on the inclosed map.

I have the honor to be, very respectfully, your obedient servant,

C. DELANO,
Secretary.

The PRESIDENT.

EXECUTIVE MANSION, March 23, 1874.

It is hereby ordered that the tract of country known and occupied as the Pyramid Lake Indian Reservation in Nevada, as surveyed by Eugene Munroe, in January, 1865, and indicated by red lines according to the courses and distances given in tabular form on accompanying diagram, be withdrawn from sale or other disposition and set apart for the Pah-Ute and other Indians residing thereon.

U. S. GRANT.

Walker River Reserve.

DEPARTMENT OF THE INTERIOR,
Washington, March 18, 1874.

SIR: I have the honor to present herewith a communication dated the 17th instant from the Commissioner of Indian Affairs, together with the accompanying map, showing the survey made by Eugene Munroe in December, 1864, of the Walker River Reservation in Nevada, and respectfully recommend that the President issue an order withdrawing from sale or other disposition, and setting apart said reservation or tract of country for the use and occupation of the Pah-Ute Indians located thereon.

The form of order necessary in the premises is engrossed on the inclosed map.

Very respectfully, your obedient servant,

C. DELANO,
Secretary.

The PRESIDENT.

EXECUTIVE MANSION, March 19, 1874.

It is hereby ordered that the reservation situated on Walker River, Nevada, as surveyed by Eugene Monroe, December, 1864, and indicated by red lines on the above diagram in accordance with the fifteen courses and distances thereon given, be withdrawn from public sale or other disposition, and set apart for the use of the Pah-Ute Indians residing thereon.

U. S. GRANT.

NEW MEXICO.

Fort Stanton Indian Reserve.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
May 23, 1873

The above diagram is intended to show a proposed reservation for the Mescalero band of Apache Indians in New Mexico; said proposed reservation is indicated on the diagram by the red lines bordered with yellow, and is described as follows, viz:

Commencing at the southwest corner of the Fort Stanton reduced military reserva-

tion, and running thence due south to a point on the hills near the north bank of the Rio Rindoso; thence along said hills to a point above the settlements; thence across said river to a point on the opposite hills, and thence to the same line upon which we start from Fort Stanton; and thence due south to the thirty-third degree north latitude; thence to the top of the Sacramento Mountains, and along the top of said mountains to the top of the White Mountains; thence along the top of said mountains to the headwaters of the Rio Nogal, to a point opposite the starting point, and thence to the starting point.

I respectfully recommend that the President be requested to order that the land comprised within the above-described limits be withheld from entry and settlement as public lands, and that the same be set apart as an Indian reservation as indicated in my report to the department of this date.

EDW. P. SMITH,
Commissioner.

DEPARTMENT OF THE INTERIOR,
May 26, 1873.

Respectfully presented to the President with the recommendation that he make the order above proposed by the Commissioner of Indian Affairs.

C. DELANO,
Secretary.

EXECUTIVE MANSION, *May 29, 1873.*

It is hereby ordered that the tract of country above described be withheld from entry and settlement as public lands, and that the same be set apart as a reservation for the Mescalero Apache Indians as recommended by the Secretary of the Interior and Commissioner of Indian Affairs.

U. S. GRANT.

EXECUTIVE MANSION, *February 2, 1874.*

In lieu of an executive order dated the 29th of May last, setting apart certain lands in New Mexico as a reservation for the Mescalero Apaches, which order is hereby canceled, it is hereby ordered that there be withdrawn from sale or other disposition, and set apart, for the use of said Mescalero Apaches and such other Indians as the department may see fit to locate thereon, the tract of country in New Mexico (except so much thereof as is embraced in the Fort Stanton reduced military reservation) bounded as follows, viz:

Beginning at the most northerly point of the Fort Stanton reduced military reservation; thence due west, to the summit of the Sierra Blanca Mountains; thence due south to the thirty-third degree north latitude; thence due east to a point due south of the most easterly point of the said Fort Stanton reduced military reservation; thence due north to the southern boundary of township 11; thence due west to the southwest corner of township 11, in range 13; thence due north to the second correction line south; thence due east along said line to a point opposite the line running north from the thirty-third degree north latitude; thence due north to the most easterly point of said Fort Stanton reduced military reservation; thence along the northeastern boundary of said military reservation to the place of beginning.

U. S. GRANT.

EXECUTIVE MANSION, *October 20, 1875.*

In lieu of executive order dated February 2, 1874, setting apart certain lands in New Mexico as a reservation for the Mescalero Apaches, which order is hereby canceled, it is hereby ordered that there be withdrawn from sale or other disposition, and set apart for the use of said Mescalero Apaches and such other Indians as the department may see fit to locate thereon, the tract of country in New Mexico (except so much thereof as is embraced in the Fort Stanton reduced military reservation) bounded as follows:

Beginning at the most northerly point of the Fort Stanton reduced military reservation; running thence due west to a point due north of the northeast corner of township 14 south, range 10 east; thence due south along the eastern boundary of said township to the thirty-third degree north latitude; thence due east on said parallel to a point due south of the most easterly point of the said Fort Stanton reduced military

reservation; thence due north to the southern boundary of township 11; thence due west to the southwest corner of township 11, in range 13; thence due north to the second correction line south; thence due east along said line to a point opposite the line running north from the thirty-third degree north latitude; thence due north to the most easterly point of said Fort Stanton reduced military reservation; thence along the northeastern boundary of said military reservation to the place of beginning.

U. S. GRANT.

Hot Springs Reserve.

EXECUTIVE MANSION, *April 9, 1874.*

It is hereby ordered that the following described tract of country in the Territory of New Mexico be, and the same is hereby, withdrawn from sale, and reserved for the use and occupation of such Indians as the Secretary of the Interior may see fit to locate thereon, as indicated in this diagram, viz:

Beginning at the ruins of an ancient pueblo in the valley of the Cañada Alamosa River, about seven miles above the present town of Cañada Alamosa, and running thence due east 10 miles; thence due north 25 miles; thence due west 30 miles; thence due south 25 miles; thence due east 20 miles to the point of beginning.

U. S. GRANT.

EXECUTIVE MANSION, *December 21, 1875.*

It is hereby ordered that the tract of country in the Territory of New Mexico, lying within the following-described boundaries, viz: Beginning at a point on the east side of the Cañada, about 1,000 yards directly east of the ruins of an ancient pueblo in the valley of Cañada Alamosa River, about seven miles above the town of Cañada Alamosa, and running thence due north 20 miles to a point; thence due west 20 miles to a point; thence due south 35 miles to a point; thence due east 20 miles to a point due south of the place of beginning; thence due north to the place of beginning, be, and the same is hereby, withdrawn from sale, and set apart for the use and occupancy of the Southern Apache and such other Indians as it may be determined to place thereon, to be known as the "Hot Springs Indian Reservation"; and all that portion of country set apart by executive order of April 9, 1874, not embraced within the limits of the above-described tract of country, is hereby restored to the public domain.

U. S. GRANT.

EXECUTIVE MANSION, *August 25, 1877.*

It is hereby ordered that the order of December 21, 1875, setting apart the following land in New Mexico as the Hot Springs Indian Reservation, viz: Beginning at a point on the east side of the Cañada, about 1,000 yards directly east of the ruins of an ancient pueblo, in the valley of the Cañada Alamosa River, about seven miles above the town of Cañada Alamosa, and running thence due north 20 miles to a point; thence due west 20 miles to a point; thence due south 35 miles to a point; thence due east 20 miles to a point due south of the place of beginning; thence due north to the place of beginning, be, and the same is hereby, canceled, and said lands are restored to the public domain.

R. B. HAYES.

Jicarilla Apache Reserve.

EXECUTIVE MANSION, *March 25, 1874.*

It is hereby ordered that the following-described tract of country in the Territory of New Mexico, set apart as a reservation for the Jicarilla Apache Indians by the first article of an agreement concluded with the said Indians December 10, 1873, subject to the action of Congress, be, and the same is hereby, withdrawn from sale and settlement, viz: Commencing at a point where the headwaters of the San Juan River crosses the southern boundary of the Territory of Colorado, following the course of said river until it intersects the eastern boundary of the Navajo Reservation; thence due north along said eastern boundary of the Navajo Reservation to where it intersects the southern boundary-line of the Territory of Colorado; thence due east along the said southern boundary of the Territory of Colorado to the place of beginning.

U. S. GRANT.

EXECUTIVE MANSION, *July 18, 1876.*

It is hereby ordered that the order of March 25, 1874, setting apart the following-described lands in the Territory of New Mexico as a reservation for the Jicarilla Apache Indians, viz: Commencing at a point where the headwaters of the San Juan River crosses the southern boundary of the Territory of Colorado; following the course of said river until it intersects the eastern boundary of the Navajo Reservation; thence due north along said eastern boundary of the Navajo Reservation to where it intersects the southern boundary-line of the Territory of Colorado; thence due east along the said southern boundary of the Territory of Colorado to the place of beginning, be, and the same is hereby, canceled, and said lands are restored to the public domain.

U. S. GRANT.

*Zuni Pueblo Reserve.*EXECUTIVE MANSION, *March 16, 1877.*

It is hereby ordered that the following-described tract of country in the Territory of New Mexico, viz: Beginning at the one hundred and thirty-sixth milestone, on the western boundary-line of the Territory of New Mexico, and running thence north $61^{\circ} 45'$ east, 31 miles and eight-tenths of a mile to the crest of the mountain a short distance above Nutrias Spring; thence due south 12 miles to point in the hills a short distance southeast of the Ojo Pescado; thence south $61^{\circ} 45'$ west to the one hundred and forty-eighth milestone on the western boundary-line of said Territory; thence north with said boundary-line to the place of beginning, be, and the same hereby is, withdrawn from sale, and set apart as a reservation for the use and occupancy of the Zuni Pueblo Indians.

R. B. HAYES.

*Navajo Reserve.*EXECUTIVE MANSION, *October 29, 1878.*

It is hereby ordered that the tract of country in the Territory of Arizona lying within the following-described boundaries, viz: Commencing at the northwest corner of the Navajo Indian Reservation, on the boundary-line between the Territories of Arizona and Utah; thence west along said boundary-line to the one hundred and tenth degree of longitude west; thence south along said degree to the thirty-sixth parallel of latitude, north; thence east along said parallel to the west boundary of the Navajo Reservation; thence north along said west boundary to the place of beginning, be, and the same hereby is, withdrawn from sale and settlement, and set apart as an addition to the present reservation for the Navajo Indians.

R. B. HAYES.

Tularosa Reserve.

(For Executive order of November 7, 1871, relative to Tularosa reserve, see page 232.)

EXECUTIVE MANSION, *November 24, 1874.*

All orders establishing and setting apart the Tularosa Valley, in New Mexico, described as follows: Beginning at the headwaters of the Tularosa River, and its tributaries in the mountains, and extending down the same ten miles on each side for a distance of 30 miles, as an Indian reservation, are hereby revoked and annulled, and the said described tract of country is hereby restored to the public domain.

U. S. GRANT.

OREGON.*Grande Ronde Reserve.*DEPARTMENT OF THE INTERIOR,
Washington, June 30, 1857.

SIR: I have the honor to submit to you, herewith, a report of the Commissioner of Indian Affairs recommending, and a report of the Commissioner of the General Land Office concurring in the recommendation, that the lands embraced in townships 5 and 6 south, of range 8 west, and parts of townships 5 and 6 south, of range 7 west, Willa-

mette district Oregon, as indicated in the accompanying plat, be withdrawn from sale and entry, and established as an Indian reservation for the colonization of Indian tribes in Oregon, and particularly for the Willamette tribes, parties to treaty of January, 1855.

I respectfully recommend that the proposed reservation be established, and have accordingly prepared a form of indorsement on the plat of the same for your signature, in case the recommendation is approved.

The "Coast Reservation" alluded to in some of the accompanying papers was established by order of your predecessor, November, 1855.

I am, very respectfully, your obedient servant,

J. THOMPSON,
Secretary.

The PRESIDENT.

EXECUTIVE OFFICE,
Washington City, June 30, 1857.

Townships 5 and 6 south, of range 8 west, and parts of townships 5 and 6 south, of range 7 west, as indicated hereon by red lines, are hereby withdrawn from sale and entry, and set apart as a reservation for Indian purposes till otherwise ordered.

JAMES BUCHANAN.

Malheur Reserve.

WASHINGTON, *March 8, 1871.*

Hon. E. S. PARKER,
Commissioner Indian Affairs:

I would respectfully ask that the President withdraw for eighteen months all that portion of the country in the State of Oregon, situated between the forty-second and forty-fourth parallels of latitude, and from one hundred and seventeen to one hundred and twenty degrees of longitude, excepting so much as may have been or may be granted for military or wagon road purposes, with a view of selecting an Indian reservation, on which to consolidate Indians east of the Cascade Mountains in said State, excepting those who may select lands in severalty from the reservation or reservations on which they are now located, and the President instruct me to proceed at the earliest practical time to select such reservation.

A. B. MEACHAM,
Superintendent of Indian Affairs, Oregon.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
Washington, D. C., March 10, 1871.

SIR: I have the honor to report that I am in receipt of a letter bearing date the 8th instant, from A. B. Meacham esq., superintendent of Indian Affairs in the State of Oregon, asking that the portion of that State lying between the forty-second and forty-fourth parallels of north latitude, and the one hundred and seventeenth and the one hundred and twentieth degrees of west longitude (excepting so much thereof as may have been or may hereafter be granted for military or wagon road purposes), be withdrawn from market as public lands, for the space of eighteen months, with a view to the selection of a reservation upon which to collect all the Indians in that State east of the Cascade Mountains, except those who may select lands in severalty upon the reservations on which they are now located.

The suggestion of Superintendent Meacham is concurred in, and I respectfully recommend that the President be requested to issue an executive order withdrawing the tract of country described from market as public lands, for the period and the purpose above indicated, and that this office be authorized to instruct the superintendent to proceed to select such reservation without unnecessary delay.

A copy of Superintendent Meacham's letter is herewith transmitted.

Very respectfully, your obedient servant,

H. R. CLUM,
Acting Commissioner.

Hon. C. DELANO,
Secretary of the Interior.

DEPARTMENT OF THE INTERIOR,
March 14, 1871.

The recommendation of the Commissioner of Indian Affairs, contained in his accompanying report has my approval, and it is respectfully submitted to the President with the request that he direct the temporary withdrawal from market of the lands

in Oregon as therein designated, with the exceptions stated, for the purpose of establishing a reservation for the Indians in that State.

C. DELANO,
Secretary.

EXECUTIVE MANSION, *March 14, 1871.*

I hereby direct the withdrawal of the lands referred to from market as public lands for the period of time and for the purpose indicated, as recommended by the Secretary of the Interior.

U. S. GRANT.

OFFICE INDIAN AFFAIRS,
Washington, September 4, 1872.

SIR: I have the honor to inclose herewith a report, dated the 22d ultimo (and accompanying map), received from T. B. Odeneal, esq., superintendent Indian affairs for Oregon, reciting the action taken by him relative to the establishment of a proposed reservation on the headwaters of Malheur River, in that State, for the Snake or Piute Indians, under instructions contained in letter to him from this office dated the 6th of July last.

Superintendent Odeneal defines the boundaries of the tract of country selected by him for the proposed reservation as follows:

"Beginning at the mouth of the North Fork of the Malheur River; thence up said North Fork, including the waters thereof, to Castle Rock; thence in a northwesterly direction to Strawberry Butte; thence to Soda Spring, on the Canyon City and Camp Harney road; thence down Silvies River to Malheur Lake; thence east to the South Fork of the Malheur River; thence down said South Fork, including the waters thereof, to the place of beginning (to be known as Malheur Reservation), including all lands within said boundaries, excepting so much thereof as may have been granted for military or wagon-road purposes."

I respectfully recommend that the tract of country embraced within the foregoing limits be set apart and reserved as an Indian reservation, and that the President be requested to issue an executive order accordingly.

It is also requested that the papers inclosed be returned to this office.

Very respectfully, your obedient servant,

F. A. WALKER,
Commissioner.

The Hon. SECRETARY OF THE INTERIOR.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., September 12, 1872.

SIR: I have the honor to transmit herewith a communication, dated the 4th instant, from the Commissioner of Indian affairs, inclosing a report (with map) of T. B. Odeneal, superintendent of Indian affairs for Oregon, and recommending that a reservation on the headwaters of the Malheur River, in the State of Oregon, the boundaries of which are set forth in the Commissioner's letter, be established for the Snake or Piute Indians.

The recommendation of the Commissioner meets with the approval of this department, and I respectfully request that the President direct the same to be carried into effect.

I have the honor to be, your obedient servant,

W. H. SMITH,
Acting Secretary.

EXECUTIVE MANSION, *September 12, 1872.*

Let the lands which are fully described in the accompanying letter of the Commissioner of Indian Affairs be set apart as a reservation for the Snake or Piute Indians, as recommended in the letter of the Secretary of the Interior of this date.

U. S. GRANT.

EXECUTIVE MANSION, *May 15, 1875.*

It is hereby ordered that the tract of country in Oregon embraced within the following-described boundaries, viz: Commencing at a point on the Malheur River where the range-line between ranges 39 and 40, east of the Willamette meridian, intersects the same; thence north, on said range-line, to a point due east of Strawberry Butte; thence west to Strawberry Butte; thence southeastwardly to Castle Rock; thence to the west bank of the North Fork of the Malheur River; thence down and with the said

west bank to the Malheur River; thence along and with the Malheur River to the place of beginning, be, and the same hereby is, withdrawn from sale or settlement except such lands within said boundaries as have passed or may pass to the Dalles Military Road Company, under act of Congress approved February 27, 1867 (vol. 14, p. 409), and to the Willamette Valley and Cascade Mountain Military Road Company, under act of Congress approved July 5, 1866 (vol. 14, p. 89), and the same set apart as an addition to the Malheur Indian Reservation, set apart by executive order of September 12, 1872.

U. S. GRANT.

EXECUTIVE MANSION, *January 28, 1876.*

It is hereby ordered that the tract of country in Oregon lying within the following-described boundaries, viz: Beginning at a point on the right bank of the Malheur River where the range-line between ranges 33 and 39 east of the Willamette meridian intersects the same; thence north on said range-line to a point due east of the summit of Castle Rock; thence due west to the summit of Castle Rock; thence in a north-westerly direction to Strawberry Butte; thence to Soda Spring, on the Canyon City and Camp Harney road; thence down Silvies Creek to Malheur Lake; thence due east to the right bank of the South Fork of Malheur River; thence down said right bank of the South Fork to the Malheur River; thence down the right bank of the Malheur River to the place of beginning, except such lands within these limits as have passed or may pass to the Dalles Military Road on the north, and the Willamette Valley and Cascade Mountain Military Road on the south, be, and the same is hereby, withdrawn from sale and set apart for the use and occupancy of the Piute and Snake Indians, to be known as the Malheur Indian Reservation; and that portion of country set apart by executive order of May 15, 1875, not embraced in the limits of the above-described tract of country, is hereby restored to the public domain.

U. S. GRANT.

Siletz Reserve.

DEPARTMENT OF THE INTERIOR,
November 8, 1855.

SIR: I herewith submit for your approval a proposed reservation for Indians on the coast of Oregon Territory, recommended by the Commissioner of Indian Affairs and submitted to the department by the Commissioner of the General Land Office, for the procurement of your order on the subject, in letter of the 10th September last.

Before submitting the matter to you I desired to have a more full report of the subject from the Indian Office, and the letter of the head of that bureau of the 29th ultimo having been received and considered, I see no objection to the conditional reservation asked for, "subject to future curtailment, if found proper," or entire release thereof, should Congress not sanction the object rendering this withdrawal of the land from white settlement at this time advisable.

A plat marked A, and indicating the boundaries of the reservation, accompanies the papers, and has prepared thereon the necessary order for your signature, should you think fit to sanction the recommendation.

I have the honor to be, very respectfully, your obedient servant,

R. McCLELLAND,
Secretary.

The PRESIDENT.

November 9, 1855.

The reservation of the land within denoted by blue-shaded lines is hereby made for the purposes indicated in letter of the Commissioner of the General Land Office of the 10th September last and letter of the Secretary of the Interior of the 8th November, 1855.

FRANK'N PIERCE.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., December 20, 1865.

SIR: Pursuant to a recommendation of the Secretary of the Interior of the 8th of November, 1855, the President of the United States, by an executive order dated the 9th of that month, set apart conditionally the tract of country on the coast of Oregon, extending from Cape Lookout on the north to a point below Cape Perpetua on the south, as exhibited in blue on the accompanying map, for an Indian reservation.

It is represented by the Oregon delegation in Congress that this reservation is unnecessarily large, and that by reason of it access to the harbor of Acquinna Bay by the numerous settlers in the fertile and productive valley of the Willamette is prevented. They ask for a curtailment of this reservation, so as to secure to the inhabitants of the Willamette Valley the much-needed access to the coast, and for this purpose propose that a small and rugged portion of the reservation in the vicinity of Acquinna Bay, not occupied or desired by the Indians, shall be released and thrown open to occupation and use by the whites.

The Commissioner of Indian Affairs is of the opinion that the interests of the citizens of Oregon will be promoted by the opening of a port of entry at Acquinna Bay, and that their interest is paramount in importance to that of the Indians located in that vicinity. Concurring in the views expressed by the Hon. Messrs. Nesmith, Williams, and Henderson, and the Commissioner of Indian Affairs, I respectfully recommend that an order be made by you releasing from reservation for Indian purposes and restoring to public use the portion of the said reservation bounded on the accompanying map by double red lines, and described in the communication of the Oregon delegation as follows, viz: Commencing at a point two miles south of the Siletz Agency; thence west to the Pacific Ocean; thence south along said ocean to the mouth of the Alcea River; thence up said river to the eastern boundary of the reservation; thence north along said eastern boundary to a point due east of the place of beginning; thence west to the place of beginning.

I have the honor to be, very respectfully, your obedient servant,

JAS. HARLAN,
Secretary.

The PRESIDENT.

EXECUTIVE MANSION, *December 21, 1865.*

The recommendation of the Secretary of the Interior is approved, and the tract of land within described will be released from reservation and thrown open to occupancy and use by the citizens as other public land.

ANDREW JOHNSON,
President.

Wallowa Valley Reserve.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
June 9, 1873.

The above diagram is intended to show a proposed reservation for the roaming Nez Percé Indians in the Wallowa Valley, in the State of Oregon. Said proposed reservation is indicated on the diagram by red lines, and is described as follows, viz: Commencing at the right bank of the mouth of Grande Ronde River; thence up Snake River to a point due east of the southeast corner of township No. 1 south of the base line of the surveys in Oregon, in range No 46 east of the Willamette meridian; thence from said point due west to the west Fork of the Wallowa River; thence down said West Fork to its junction with the Wallowa River; thence down said river to its confluence with the Grande Ronde River; thence down the last-named river to the place of beginning.

I respectfully recommend that the President be requested to order that the lands comprised within the above-described limits be withheld from entry and settlement as public lands, and that the same be set apart as an Indian reservation, as indicated in my report to the department of this date.

EDWARD P. SMITH,
Commissioner.

DEPARTMENT OF THE INTERIOR,
June 11, 1873.

Respectfully presented to the President, with the recommendation that he make the order above proposed by the Commissioner of Indian Affairs.

C. DELANO,
Secretary.

EXECUTIVE MANSION, *June 16, 1873.*

It is hereby ordered that the tract of country above described be withheld from entry and settlement as public lands, and that the same be set apart as a reservation for the roaming Nez Percé Indians, as recommended by the Secretary of the Interior and the Commissioner of Indian Affairs.

U. S. GRANT.

Wallowa Valley Reserve.

EXECUTIVE MANSION, June 10, 1875.

It is hereby ordered that the order dated June 16, 1873, withdrawing from sale and settlement and setting apart the Wallowa Valley, in Oregon, described as follows: Commencing at the right bank of the mouth of Grande Ronde River; thence up Snake River to a point due east of the southeast corner of township No. 1 south of the base line of the surveys in Oregon, in range No. 46 east of the Willamette meridian; thence from said point due west to the West Fork of the Wallowa River; thence down said West Fork to its junction with the Wallowa River; thence down said river to its confluence with the Grande Ronde River; thence down the last-named river to the place of beginning, as an Indian reservation, is hereby revoked and annulled, and the said described tract of country is hereby restored to the public domain.

U. S. GRANT.

UTAH.

*Uintah Valley Reserve.*DEPARTMENT OF THE INTERIOR,
Washington, October 3, 1861.

SIR: I have the honor herewith to submit for your consideration the recommendation of the Acting Commissioner of Indian Affairs, that the Uintah Valley, in the Territory of Utah, be set apart and reserved for the use and occupancy of Indian tribes.

In the absence of an authorized survey (the valley and surrounding country being as yet unoccupied by settlements of our citizens), I respectfully recommend that you order the entire valley of the Uintah River, within Utah Territory, extending on both sides of said river to the crest of the first range of contiguous mountains on each side, to be reserved to the United States and set apart as an Indian reservation.

Very respectfully, your obedient servant,

CALEB B. SMITH,
Secretary.

The PRESIDENT.

EXECUTIVE OFFICE, October 3, 1861.

Let the reservation be established, as recommended by the Secretary of the Interior.

A. LINCOLN.

WASHINGTON TERRITORY.

*Chehalis Reserve.*DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
May 17, 1864.

SIR: I have the honor to submit for your direction in the premises, sundry communications and papers from Superintendent Hale, in reference to a proposed reservation for the Chehalis Indians in Washington Territory.

The condition of these Indians has been the subject of correspondence between this office and the superintendent of Indian affairs in Washington Territory for several years. It will be seen by Superintendent Hale's letter of July 3, 1862, that the country claimed by these Indians is large, comprising some 1,500 square miles; that they have never been treated with, but that the government has surveyed the greater part of it without their consent, and in the face of their remonstrances, and the choicest portions of their lands have been occupied by the whites without any remuneration to them, and without their consent, or having relinquished their claim or right to it. They have been thus crowded out and excluded from the use of the lands claimed by them, and those which they have heretofore cultivated for their support. This has caused much dissatisfaction, and threatens serious trouble, and they manifest a determination not to be forced from what they claim as their own country. After various propositions made to them by Superintendent Hale, looking to their removal and joint occupation of other Indian reservations, to all which they strenuously objected, they expressed a willingness to relinquish all the lands hitherto claimed by them, provided they shall not be removed, and provided that a sufficient quantity of land shall be retained by them at the mouth of Black River as a reservation.

The selection herein made in accordance with their wishes, and approved by Superintendent Hale, reduces the dimensions of their former claim to about six sections of land, with which they are satisfied, and which selection has been submitted to this office for its approval. There seems one drawback only to this selection, and that is one private land claim—that of D. Mounts—which it is proposed to purchase. The price

asked is \$3,500, which he considers not unreasonable. (See his communication of March 30, 1863, and accompanying papers.)

There is remaining on hand of the appropriation for "intercourse with various Indian tribes having no treaties with the United States" the sum of \$3,980.12, a sufficient amount of which I have no doubt might appropriately be applied for the purpose indicated. (See U. S. Statutes at Large, vol. 12, page 792.)

I am of the opinion that the proposition is a fair one for the government, and, as it is satisfactory to the Indians interested, I see no objection to its approval by the department, especially so when it is considered that it will peaceably avert impending trouble.

As recommended in the letters herewith submitted, it will also be necessary, doubtless, to make some provision for them, after they shall have been assured of the quiet and permanent possession of the proposed reservation for a future home. But this may subsequently receive the attention of the department. These Indians are represented to be in a very hopeful condition. They wish to abandon a roving life; to establish themselves in houses, and cultivate their lands; to educate their children, and live peaceably with all.

These papers are submitted for your information in considering the subject, and, if it shall commend itself to your judgment, for the approval of the proposed selection as a reservation for these Indians and the purchase of the private land claim of D. Mounts thereon.

Very respectfully, your obedient servant,

WM. P. DOLE,
Commissioner.

Hon. J. P. USHER,
Secretary of the Interior.

Boundaries of the Chehalis Indian Reservation, as compiled from the field-notes of the public surveys in the office of the surveyor-general of Washington Territory, beginning at the post-corner to sections 1 and 2, 35 and 36 on the township line between townships No. 15 and 16 north, of range 4 west of the Willamette meridian, being the northeast corner of the reservation; thence west along the township line 240 chains to the post-corner to sections 4, 5, 32 and 33; thence north on line between sections 32 and 33, 26.64 chains, to the southeast corner of James H. Roundtree's donation claim; thence west along the south boundary of said claim 71.50 chains to its southwest corner; thence north on west boundary of the claim 13.10 chains; thence west 8.50 chains to the quarter-section post on line of sections 31 and 32; thence north along said section line 40.00 chains to the post-corner to sections 29, 30, 31 and 32; thence west on line between sections 30 and 31, 25 and 36, 101.24 chains to the Chehalis River; thence up the Chehalis River with its meanderings, keeping to the south of Sand Island, to the post on the right bank of the river, being the corner to fractional sections 1 and 2; thence north on the line between sections 1 and 2, 73.94 chains to the place of beginning.

The copy of the field-notes in full, as taken from the record of the public surveys now on file in this office, and from which the above is compiled, is duly certified as being correct by the surveyor-general of the Territory.

OFFICE SUPERINTENDENT INDIAN AFFAIRS,
Olympia, Wash. Ter., December 10, 1863.

The within and foregoing boundaries, as described in the notes and accompanying diagram of the proposed Chehalis Indian reservation, are approved by me as correct, and being in accordance with instructions given by me, the same being subject to the approval of the Commissioner of Indian Affairs.

C. H. HALE,
Superintendent of Indian Affairs, Washington Territory.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., July 8, 1864.

SIR: I return herewith the papers submitted with your report of the 17th May last in relation to a proposed reservation for the Chehalis Indians in Washington Territory.

I approve the suggestion made in relation to the subject, and you are hereby authorized and instructed to purchase the improvements of D. Mounts which are on the lands selected for the reservation, if it can now be done for the price named for them, viz, \$3,500, including the crops grown or growing this season upon the premises.

Very respectfully, your obedient servant,

J. P. USHER,
Secretary.

WILLIAM P. DOLE, Esq.,
Commissioner of Indian Affairs.

Colville Reserve.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
Washington, D. C., April 8, 1872.

SIR: I have the honor to invite your attention to the necessity for the setting apart by executive order of a tract of country hereinafter described, as a reservation for the following bands of Indians in Washington Territory, not parties to any treaty, viz:

The Methow Indians, numbering.....	316
The Okanagan Indians, numbering.....	340
The San Poel Indians, numbering.....	538
The Lake Indians, numbering.....	230
The Colville Indians, numbering.....	631
The Calispel Indians, numbering.....	420
The Spokane Indians, numbering.....	725
The Cœur d'Alêne Indians, numbering.....	700
And scattering bands.....	300
Total	4,200

* * * Excluding that portion of the tract of country referred to found to be in the British possessions, the following are the natural boundaries of the proposed reservation, which I have the honor to recommend be set apart by the President for the Indians in question, and such others as the department may see fit to settle thereon, viz: Commencing at a point on the Columbia River where the Spokane River empties in the same; thence up the Columbia River to where it crosses the forty-ninth parallel north latitude; thence east, with said forty-ninth parallel, to where the Pend d'Oreille or Clark River crosses the same; thence up the Pend d'Oreille or Clark River to where it crosses the western boundary of Idaho Territory, the one hundred and seventeenth meridian west longitude; thence south, along said one hundred and seventeenth meridian, to where the Little Spokane River crosses the same; thence southwesterly, with said river, to its junction with the Big Spokane River; thence down the Big Spokane River to the place of beginning.

The papers hereinbefore referred to are respectfully submitted herewith.

Very respectfully, your obedient servant,

F. A. WALKER,
Commissioner.

The Hon. SECRETARY OF THE INTERIOR.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
Washington, D. C., April 9, 1872.

SIR: I have the honor to submit herewith a communication, dated the 8th instant, from the Commissioner of Indian Affairs, and accompanying papers, representing the necessity for the setting apart, by executive order, of a tract of country therein described for certain bands of Indians in Washington Territory not parties to any treaty.

The recommendation of the Commissioner in the premises is approved, and I respectfully request that the President direct that the tract of country designated upon the inclosed map be set apart for the Indians referred to, and such others as this department may see fit to settle thereon.

I am, sir, very respectfully, your obedient servant,

B. R. COWEN,
Acting Secretary.

EXECUTIVE MANSION,
Washington, April 9, 1872.

It is hereby ordered that the tract of country referred to in the within letter of the Acting Secretary of the Interior, and designated upon the accompanying map, be set apart for the bands of Indians in Washington Territory named in communication of the Commissioner of Indian Affairs, dated the 8th instant, and for such other Indians as the Department of the Interior may see fit to locate thereon.

U. S. GRANT.

EXECUTIVE MANSION,
Washington, July 2, 1872.

It is hereby ordered that the tract of country referred to in the within letter of the Commissioner of Indian Affairs as having been set apart for the Indians therein

named by executive order of April 9, 1872, be restored to the public domain, and that in lieu thereof the country bounded on the east and south by the Columbia River, on the west by the Okanagan River, and on the north by the British possessions, be, and the same is hereby, set apart as a reservation for said Indians, and for such other Indians as the Department of the Interior may see fit to locate thereon.

U. S. GRANT.

Makah Reserve.

EXECUTIVE MANSION, *October 26, 1872.*

In addition to the reservation provided for by the second article of the treaty concluded January 31, 1855, with the Makah Indians of Washington Territory, it is hereby ordered that there be withdrawn from sale and set apart for the use of the said Makah and other Indians, a tract of country in the said Territory of Washington, described and bounded as follows, viz: Commencing on the beach at the mouth of a small brook running into Neah Bay next to the site of the old Spanish fort; thence along the shore of said bay in a northeasterly direction to Boadah Point (being a point about four miles from the beginning); thence in a direct line south six miles; thence in a direct line west to the Pacific shore; thence northwardly along the shore of the Pacific to the mouth of a small stream running into the bay on the south side of Cape Flattery, a little above the Waatch Village; thence following said brook to its source; thence in a straight line to the place of beginning; the boundary-line from the mouth of the brook last mentioned to the place of beginning being identical with the southeastern boundary of the reservation set apart for the Makah tribe of Indians by the treaty concluded with said Indians January 31, 1855, before referred to.

U. S. GRANT.

EXECUTIVE MANSION, *January 2, 1873.*

In lieu of the addition made by executive order dated October 26, 1872, to the reservation provided for by the second article of the treaty concluded January 31, 1855, with the Makah Indians of Washington Territory, it is hereby ordered, that there be withdrawn from sale and set apart as such addition, for the use of the said Makah and other Indians, the tract of country in the said Territory of Washington bounded as follows, viz: Commencing on the beach at the mouth of a small brook running into Neah Bay next to the site of the old Spanish Fort; thence along the shore of said bay in a northeasterly direction four miles; thence in a direct line south six miles; thence in a direct line west to the Pacific shore; thence northwardly along the shore of the Pacific to the mouth of a small stream running into the bay on the south side of Cape Flattery a little above the Waatch Village; thence following said brook to its source; thence in a straight line to the place of beginning; the boundary line from the mouth of the brook last mentioned to the place of beginning being identical with the southeastern boundary of the reservation set apart for the Makah and other Indians by the treaty above referred to.

U. S. GRANT.

EXECUTIVE MANSION, *October 21, 1873.*

In lieu of the addition made by executive order dated October 26, 1872, and amended by executive order of January 2, 1873, to the reservation provided for by the second article of the treaty concluded January 31, 1855, with the Makah tribe of Indians of Washington Territory (Statutes at Large, vol. 12, p. 939), which orders are hereby revoked, it is hereby ordered that there be withdrawn from sale and set apart as such addition for the use of the said Makah and other tribes of Indians, the tract of country in said Territory bounded as follows, viz: Commencing on the beach at the mouth of a small brook running into Neah Bay next to the site of the old Spanish fort; thence along the shore of said bay in a northeasterly direction, four miles; thence in a direct line south, six miles; thence in a direct line west to the Pacific shore; thence northwardly along the shore of the Pacific to the mouth of another small stream running into the bay on the south side of Cape Flattery, a little above the Waatch Village; thence following said brook to its source; thence in a straight line to the source of the first-mentioned brook, and thence following the same down to the place of beginning.

U. S. GRANT.

Nisqually, Puyallup, and Muckleshoot Reserves.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
January 19, 1857.

SIR: The treaty negotiated on the 26th day of December, 1854, with certain bands of Nisqually, Puyallup, and other Indians of Puget's Sound, Washington Territory (article 2), provided for the establishment of reservations for the colonization of the Indians as follows: 1st. The small island called Klah-chemin. 2d. A square tract containing two sections near the mouth of the She-nah-nam Creek. 3d. Two sections on the south side of Commencement Bay.

The sixth article of the treaty gives the President authority to remove the Indians from those locations to other suitable places within Washington Territory, or to consolidate them with friendly bands.

So far as this office is advised a permanent settlement of the Indians has not yet been effected under the treaty. Governor Stevens has formed the opinion that the locations named in the first article of the treaty were not altogether suitable for the purpose of establishing Indian colonies. One objection was that they were not sufficiently extensive. He reported that seven hundred and fifty Indians had been collected from the various bands for settlement.

I have the honor now to submit for your consideration and action of the President, should you deem it necessary and proper, a report recently received from Governor Stevens, dated December 5, 1856, with the reports and maps therewith, and as therein stated, from which it will be observed that he has arranged a plan of colonization which involves the assignment of a much greater quantity of land to the Indians, under the sixth article of the treaty, than was named in the first article. He proposes the enlargement of the Puyallup Reserve at the south end of Commencement Bay to accommodate 500 Indians; the change in the location, and the enlargement of the Nisqually Reserve, and the establishment of a new location, Muckleshoot prairie, where there is a military station that is about to be abandoned.

The quantity of land he proposes to assign is not, in my opinion, too great for the settlement of the number of Indians he reports for colonization; and as the governor recommends the approval of these locations, and reports that the Indians assent thereto, I would respectfully suggest that they be approved by the President; my opinion being that, should it be found practicable hereafter to consolidate the bands for whom these reserves are intended, or to unite other bands of Indians on the same reserves, the authority to effect such objects will still remain with the President under the sixth article of the treaty.

Within the Puyallup Reserve there have been private locations, and the value of the claims and improvements has been appraised by a board appointed for that purpose at an aggregate of \$4,917.

In the same connection I submit the governor's report of August 28, 1856, which he refers to, premising that the proceedings of his conference with the Indians therein mentioned, were not received here with the report.

Very respectfully, your obedient servant,

GEO. W. MANYPENNY,
Commissioner.

Hon. R. McCLELLAND,
Secretary of the Interior.

DEPARTMENT OF THE INTERIOR,
Washington, January 20, 1857.

SIR: I have the honor to transmit a communication of the 19th instant, from the Commissioner of Indian Affairs to this department, indicating the reservations selected for the Nisqually, Puyallup, and other bands of Indians in Washington Territory, and to request your approval of the same.

With great respect, your obedient servant,

R. McCLELLAND,
Secretary.

The PRESIDENT.

Approved.

FRANKLIN PIERCE.

JANUARY 20, 1857.

Puyallup Reserve.

DEPARTMENT OF THE INTERIOR,
OFFICE INDIAN AFFAIRS,
August 26, 1873.

SIR: By the second article of the treaty concluded with the Nisqually and other Indians December 26, 1854 (Stat. at Large, vol. 10, p. 1132), "a square tract containing two sections, or 1,280 acres, lying on the south side of Commencement Bay," was set apart as a reservation for said Indians, and is known as the Puyallup Reserve.

It appears from the records of this office that Governor Stevens, finding the Indians dissatisfied with the size and location of the reserve, as indicated by said treaty, agreed, at a conference held with them August, 1856, to a readjustment of said reservation, the exterior boundaries of which were surveyed and established by his order. This was done prior to the extension of the lines of the public surveys over the surrounding and adjacent lands. A map of the survey was transmitted by Governor Stevens to this office, under date of December 5, 1856, giving a description of the courses and distances of said exterior boundaries of the reserve as taken from the field-notes of the survey on file in the office of superintendent Indian affairs Washington Territory.

This reservation, as readjusted and indicated on said map, was set apart for these Indians by executive order dated January 20, 1857. It was intended to have this reservation bounded on its western side by the waters of Commencement Bay, from the southeasterly extremity of said bay, around northwardly to the northwest corner of the reservation on the southerly shore of Admiralty Inlet. The survey was thought to be made so as to give to the Indians this frontage upon the bay, with free access to the waters thereof. More recent surveys, however, develop the fact that there is land along this shore, and outside the reservation, arising from an error of the surveyor in leaving the line of low-water mark, along the shore of said bay, and running a direct line to the place of beginning.

In a report dated March 20 last, Superintendent Milroy calls attention to this inadvertence, and for the adjustment of the western boundary of said reservation, so that it may conform to the intentions of those agreeing to the same, as well as for the comfort and wants of the Indians, he recommends the following change, viz: Instead of the direct line to the place of beginning, to follow the shore line, at low-water mark, to the place of beginning.

Inasmuch as the lands proposed to be covered by this change are in part already covered by the grant to the Northern Pacific Railroad Company and by donation claims, I would respectfully recommend that the President be requested to make an order setting apart for the use of these Indians an addition to said Puyallup Reservation as follows, viz: All that portion of section 34, township 21 north, range 3 east, in Washington Territory, not already included within the limits of the reservation. This would give them a mile of water-frontage directly north of Puyallup River, and free access to the waters of Commencement Bay at that point.

Very respectfully, your obedient servant,

H. R. CLUM,
Acting Commissioner.

The Hon. SECRETARY OF THE INTERIOR.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., August 28, 1873.

SIR: I have the honor to transmit herewith a copy of a communication addressed to this department on the 26th instant, by the Acting Commissioner of Indian Affairs, relative to the extension by executive order of the reservation in Washington Territory known as the Puyallup Reservation, described as follows, to wit: All that portion of section 34, township 21 north, range 3 east, in Washington Territory, not already included within the limits of the reservation.

I agree with the Acting Commissioner in his views, and respectfully request that in accordance with his recommendation an executive order be issued, setting apart the tract of land described for the purpose indicated.

I have the honor to be, &c.,

W. H. SMITH,
Acting Secretary.

The PRESIDENT.

EXECUTIVE MANSION, September 6, 1873.

Agreeable to the recommendation of the Acting Secretary of the Interior, it is hereby ordered that the Puyallup Reservation in Washington Territory be so extended as to include within its limits all that portion of section 34, township 21 north, range 3 east, not already included within the reservation.

U. S. GRANT.

Muckleshoot Reserve.

EXECUTIVE MANSION, April 9, 1874.

It is hereby ordered that the following tracts of land in Washington Territory, viz: Sections 2 and 12 of township 20 north, range 5 east, and sections 20, 28, and 34, of township 21 north, range 5 east, Willamette meridian, be withdrawn from sale or other disposition, and set apart as the Muckleshoot Indian Reservation, for the exclusive use of the Indians in that locality, the same being supplemental to the action of the department approved by the President January 20, 1857.

U. S. GRANT.

Shoalwater Reserve.

EXECUTIVE MANSION, September 22, 1866.

Let the tract of land as indicated on the within diagram be reserved from sale and set apart for Indian purposes, as recommended by the Secretary of the Interior in his letter of the 18th instant; said tract embracing portions of sections 2 and 3 in township 14 north, range 11 west, Washington Territory.

ANDREW JOHNSON.

Lummi Reserve.

EXECUTIVE MANSION, November 22, 1873.

It is hereby ordered that the following tract of country in Washington Territory be withdrawn from sale and set apart for the use and occupation of the Dwamish and other allied tribes of Indians, viz: Commencing at the eastern mouth of Lummi River; thence up said river to the point where it is intersected by the line between sections 7 and 8 of township 38 north, range 2 east, of the Willamette meridian; thence due north on said section line to the township line between townships 38 and 39; thence west along said township line to low-water mark, on the shore of the Gulf of Georgia; thence southerly and easterly along the said shore, with the meanders thereof, across the western mouth of Lummi River, and around Point Francis; thence northeasterly to the place of beginning; so much thereof as lies south of the west fork of the Lummi River being a part of the island already set apart by the second article of the treaty with the Dwamish and other allied tribes of Indians, made and concluded January 22, 1857. (Stats. at Large, vol. 12, p. 928.)

U. S. GRANT.

*Port Madison Reserve.*OFFICE SUPERINTENDENT OF INDIAN AFFAIRS,
Olympia, W. T., July 13, 1864.

SIR: In the absence of the superintendent of Indian affairs, who is now at Fort Colville or in that neighborhood in the discharge of his official duty, at the request of Hon. A. A. Denny, register of the land-office in this place, I would respectfully call your attention to the condition of the Indian reservation near Port Madison, concerning the enlargement of which the superintendent addressed you about a year ago, forwarding at the same time a plat of the proposed reserve.

By reference to the treaty of Point Elliott made with the Dwamish and other allied tribes of Indians January 22, 1855, it will be seen that article 2 provides for them a reservation at this point. This was soon found to be too limited, and whilst Governor Stevens was yet superintendent of Indian affairs the Indians were promised an enlargement. That promise seems to have been renewed subsequently, but nothing definite agreed upon.

Last July, Seattle, the principal chief of the Seattle band, with a number of sub-chiefs and others directly interested, visited the superintendency upon this subject. At their request a thorough examination was had, the result of which was in favor of submitting their request to you, and recommending that it be granted. By reference to report of Agent Howe, which accompanies the last annual report of the superintendent for the year ending June 30, 1863, it will be seen that he is well satisfied of the absolute necessity of its enlargement.

The accompanying plat shows what is proposed to be reserved, which is satisfactory to the Indians. As there were no instructions from the Commissioner of the General

Land Office, these lands could not be reserved, but were necessarily offered for sale. There being no bidders the lands are still vacant.

Immediately after the public sale the superintendent gave notice of the intention of the department to retain these lands for an Indian reservation, and the public have so far acquiesced as not to disturb these proposed boundaries. Still, as the lands were offered at public sale under the proclamation of the President, they are now, agreeably to law, subject to private entry. Should, therefore, application be made to the register for the entry of any of these lands, he would, as matters now stand, be powerless to prevent it.

The register has just addressed the Commissioner of the General Land Office on this subject. Hence the reason of my addressing you without awaiting the return of the superintendent, who may be absent for a month, and respectfully asking that such steps may at once be taken as to prevent any lands within the proposed boundaries being sold by the register until he be further advised.

Very respectfully, your obedient servant,

GEO. F. WHITWORTH,
Chief Clerk.

Hon. WM. P. DOLE,
Commissioner of Indian Affairs, Washington.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
September 12, 1864.

SIR: I have the honor to inclose herewith for your consideration a letter from C. H. Hale, late superintendent of Indian affairs for Washington Territory, by his clerk, calling attention to the necessity of immediate action in order to secure certain lands to the Indians therein mentioned, near Port Madison, for an enlargement of their reservation.

It appears from the report of Agent Howe, made to this office last year, that the proposed enlargement of the reservation is deemed to be advisable, and I have to request that you will direct that the tracts of land described in the plat inclosed in the letter of Mr. Whitworth may be reserved from sale, so that they may be set apart for the Indians for whom they are intended.

Very respectfully, your obedient servant,

W. P. DOLE,
Commissioner.

Hon. W. P. OTTO,
Acting Secretary of the Interior.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., October 21, 1864.

SIR: I transmit herewith a letter of the Commissioner of Indian Affairs, of the 12th ultimo, covering a communication from the chief clerk of the office of superintendent of Indian affairs for Washington Territory, respecting the enlargement of the Port Madison Indian Reservation.

Concurring with the Commissioner in his recommendation that the reserve be increased, for the benefit of the Indians referred to in the papers inclosed, you are requested to have reserved from sale the tracts of land indicated upon the plat herein inclosed.

Very respectfully, your obedient servant,

J. P. USHER,
Secretary.

JAMES M. EDMUNDS, Esq.,
Commissioner General Land Office.

Snohomish or Tulalip Reserve.

EXECUTIVE MANSION, *December 23, 1873.*

It is hereby ordered that the boundaries of the Snohomish or Tulalip Indian Reservation in the Territory of Washington provided for in the third article of the treaty with the Dwamish and other allied tribes of Indians, concluded at Point Elliott, January 22, 1855 (Stats. at Large, vol. 12, p. 928), shall be as follows, to wit: Beginning at low-water mark on the north shore of Steamboat Slough at a point where the section line between sections 32 and 33 of township 30 north, range 5 east, intersects the same; thence north on the line between sections 32 and 33, 28 and 29, 20 and 21, 16 and 17, 8 and 9, and 4 and 5, to the township line between townships 30 and 31; thence west

on said township line to low-water mark on the shore of Port Susan; thence southeasterly with the line of low-water mark along said shore and the shores of Tulalip Bay and Port Gardner, with all the meanders thereof, and across the mouth of Ebey's Slough to the place of beginning.

U. S. GRANT.

Swinomish Reserve.

EXECUTIVE MANSION, *September 9, 1873.*

Agreeable to the within request of the Acting Secretary of the Interior, it is hereby ordered that the northern boundary of the Swinomish Reservation in the Territory of Washington shall be as follows, to wit: Beginning at low-water mark on the shore of Similk Bay at a point where the same is intersected by the north and south line bounding the east side of the surveyed fraction of 9.30 acres, or lot No. 1, in the northwest corner of section 10 in township 34 north, range 2 east; thence north on said line to a point where the same intersects the section line between sections 3 and 10 in said township and range; thence east on said section line to the southeast corner of said section 3; thence north on east line of said section 3 to a point where the same intersects low-water mark on the western shore of Padilla Bay.

U. S. GRANT.

Quinaielt Reserve.

EXECUTIVE MANSION, *November 4, 1873.*

In accordance with the provisions of the treaty with the Quinaielt and Quillehute Indians, concluded July 1, 1855, and January 25, 1856 (Stats. at Large, vol. 12, p. 971), and to provide for other Indians in that locality, it is hereby ordered that the following tract of country in Washington Territory (which tract includes the reserve selected by W. W. Miller, superintendent of Indian affairs for Washington Territory, and surveyed by A. C. Smith, under contract of September 16, 1861) be withdrawn from sale and set apart for the use of the Quinaielt, Quillehute, Hoh, Quit, and other tribes of fish-eating Indians on the Pacific coast, viz: Commencing on the Pacific coast at the southwest corner of the present reservation, as established by Mr. Smith in his survey under contract with Superintendent Miller, dated September 16, 1861, thence due east, and with the line of said survey, five miles to the southeast corner of said reserve thus established; thence in a direct line to the most southerly end of Quinaielt Lake; thence northerly around the east shore of said lake to the northwest point thereof; thence in a direct line to a point a half mile north of the Queetshee River and three miles above its mouth; thence with the course of said river to a point on the Pacific coast at low-water mark, a half mile above the mouth of said river; thence southerly, at low-water mark, along the Pacific to the place of beginning.

U. S. GRANT.

Skokomish Reserve.

EXECUTIVE MANSION, *February 25, 1874.*

It is hereby ordered that there be withdrawn from sale or other disposition and set apart for the use of the S'Klallam Indians the following tract of country on Hood's Canal in Washington Territory, inclusive of the six sections situated at the head of Hood's Canal, reserved by treaty with said Indians January 26, 1855 (Stats. at Large, vol. 12, p. 934), described and bounded as follows: Beginning at the mouth of the Skokomish River; thence up said river to a point intersected by the section line between sections 15 and 16 of township 21 north, in range 4 west; thence north on said line to corner common to sections 27, 28, 33 and 34 of township 22 north, range 4 west; thence due east to the southwest corner of the southeast quarter of the southeast quarter of section 27, the same being the southwest corner of A. D. Fisher's claim; thence with said claim north to the northwest corner of the northeast quarter of the southeast quarter of said section 27; thence east to the section line between sections 26 and 27; thence north on said line to corner common to sections 22, 23, 26, and 27; thence east to Hood's Canal; thence southerly and easterly along said Hood's Canal to the place of beginning.

U. S. GRANT.

WISCONSIN.

*Red Cliff Reserve.*GENERAL LAND OFFICE,
September 6, 1855.

SIR: Inclosed I have the honor to submit an abstract from the Acting Commissioner of Indian Affairs' letter of the 5th instant, requesting the withdrawal of certain lands for the Chippewa Indians in Wisconsin, under the treaty of September 30, 1854, referred by the department to this office on the 5th instant, with orders to take immediate steps for the withdrawal of the lands from sale.

In obedience to the above order I herewith inclose a map, marked A, showing by the blue shades thereon the townships and parts of townships desiring to be reserved, no portion of which are yet in market, to wit: Township 51 north of range 3 west, fourth principal meridian, Wisconsin; northeast quarter of township 51 north of range 4 west, fourth principal meridian, Wisconsin; township 52 north of ranges 3 and 4 west, fourth principal meridian, Wisconsin. For the reservation of which, until the contemplated selections under the sixth clause of the Chippewa treaty of 30th September, 1854, can be made, I respectfully recommend that the order of the President may be obtained.

The requisite reports on the subject of the new surveys, and respecting pre-emption claims, referred to in the same order, will be prepared and communicated at an early day.

I am, respectfully, your obedient servant,

THOMAS A. HENDRICKS,
*Commissioner.*Hon. R. McCLELLAND,
*Secretary of the Interior.*DEPARTMENT OF THE INTERIOR,
February 20, 1856.

This plat represents by the blue shade certain land to be withdrawn with a view to a reservation under Chippewa treaty of 30th September, 1854, and as more particularly described in Commissioner of the General Land Office's letter of 6th September, 1855. The subject was referred to the President for his sanction of the recommendation made in Secretary's letter of 8th September, 1855, and the original papers cannot now be found. This plat is a duplicate of the original received in letter of Commissioner of the General Land Office of this date, and is recommended to the President for his sanction of the withdrawal desired.

R. McCLELLAND,
Secretary.

FEBRUARY 21, 1856.

Let the withdrawal be made as recommended.

FRANKLIN PIERCE.

Table of statistics relating to population, education, &c.,

Name of agency and tribe.	Population.	Number habitually on reserve.	Number of Indians who wear citizen's dress.		Number of Indian families engaged in civilized pursuits.	Number of mixed-blood families engaged in civilized pursuits.	Number of full-blood male Indians engaged in civilized pursuits.	Number of Indian apprentices.	Number of houses occupied by Indians.	Number of Indian houses built during the year.
			Male.	Female.						
ARIZONA.										
Colorado River agency.										
Mojave.....	1, 100	900	6	4	All..	0	All..			
Chimehueva.....	320									
Hualapai.....	620									
Coahuila.....	150									
Cocopah.....	180									
Pima and Maricopa agency.										
Pima.....	4, 100	} a2,200	1, 100	1, 400	} All	0	All..			
Maricopa.....	400		50	50						
Papago.....	6, 000		1, 500	1, 500						150
Moquis Pueblo agency.										
Moquis Pueblo.....	1, 790	1, 790	20	1	All..	0	All..		400	2
San Carlos agency.										
Pinal and Aravaipa Apache.....	891	} 4, 052	200		300		c800			
Chiricahua Apache.....	262									
Southern Apache.....	242									
Tonto Apache.....	593									
White Mountain Apache.....	612									
Coyotero Apache.....	987									
Apache Mojave.....	600									
Apache Yuma.....	315									
Indians in Arizona not under an agent.										
Yuma.....	930									
Mojave.....	700									
CALIFORNIA.										
Hoopa Valley agency.										
Hoopa.....	427		131	166						
Round Valley agency.										
Potter Valley.....	292	} 915	444	521	Maj'y	Maj'y	{ All able }	} 14	52	3
Pit River.....	39									
Ukie and Wylackie.....	199									
Redwood.....	74									
Concow.....	162									
Little Lake.....	199									
Mission agency.										
Mission, Coahuila, Temecula, and others.....	4, 400									
Tule River agency.										
Tule and Tejon.....	180	180	93	87	26	1	83	2	37	9
Wichumni, Kahweah, and King's River.....	e540									

a Half are absent temporarily in order to cultivate lands capable of irrigation.

b For other purposes than education.

among Indians, by tribes and their respective agencies.

Educational.												Religious.			Vital.	
Number of children of school age.	Number who can be accommodated in schools.		No. of schools.		Number attending school one month or more during the year.		Average attendance.	Number of months during which school has been maintained.	Amount expended for education during the year.	Number of Indians who can read.	Number who have learned to read within the year.	Number of church buildings.	Number of missionaries.	Amount contributed by religious societies during the year.	Number of births.	Number of deaths.
	Boarding.	Day.	Boarding.	Day.	Male.	Female.										
200		40														
60																
120																
30																
40																
1,000		60		1	43	21	41	9	\$1,300	21				b\$50		
1,200										21		1				
413	40	50								15					105	4
500															400	250
200																
150																
80										d7		d1				
82		82		2	43	35	57	12	1,604	65	19			b500	19	34
900																
40		50		1	17	17	15	9	570	60	5			10	4	9

c Irregularly.

d From report of 1877.

e Not on a reservation.]

Indians, by tribes and their respective agencies—Continued.

Educational.													Religious.			Vital.	
Number of children of school age.	Number who can be accommodated in schools.		No. of schools.		Number attending school one month or more during the year.		Average attendance.	Number of months during which school has been maintained.	Amount expended for education during the year.	Number of Indians who can read.	Number who have learned to read within the year.	Number of church buildings.	Number of missionaries.	Amount contributed by religious societies during the year.	Number of births.	Number of deaths.	
	Boarding.	Day.	Boarding.	Day.	Male.	Female.											
.....																	
.....																	
.....																	
.....																	
.....																	
.....																	
.....																	
.....																	
150	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
125	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
200	18	.....	1	.....	10	7	5	8	\$900	10	3	.....	.....	a\$150	...	.....	
.....																	
461	12	166	1	5	185	180	210	10	3,986	400	30	4	2	{ a2,886 b2,359 }	...	.....	
.....	22	80	1	2	95	92	77	12	3,250	75	50	3	1	{ a750 b15 }	29	21	
270	40	.....	1	.....	29	31	38	12	3,280	75	29	.....	1	{ a30 b60 }	65	61	
80	.....	40	.....	1	25	16	11	10	943	152	13	2	1	b200	9	13	
360	.....	60	.....	1	20	15	24	9	1,180	2	.....	.....	1	{ a400 b1,000 }	60	40	
275	.....	100	.....	3	70	50	20	10	1,550	28	8	1	1	b69	13	3	

Table of statistics relating to population, education, &c., among

Name of agency and tribe.	Population.	Number habitually on reserve.	Number of Indians who wear citizen's dress.		Number of Indian families engaged in civilized pursuits.	Number of mixed-blood families engaged in civilized pursuits.	Number of full-blood male Indians engaged in civilized pursuits.	Number of Indian apprentices.	Number of houses occupied by Indians.	Number of Indian houses built during the year.
			Male.	Female.						
DAKOTA—Continued.										
<i>Red Cloud agency.</i>										
Ogalalla Sioux.....	6, 035		184	35						
<i>Spotted Tail agency.</i>										
Northern Sioux	649	5, 300	40				100			
Brulé Sioux	2, 849									
Loafer Sioux	1, 455									
Wahzazah Sioux	1, 103									
<i>Sisseton agency.</i>										
Sisseton and Wahpeton Sioux	1, 500	1, 500	700	800	All..	All..	All..	4	275	10
<i>Standing Rock agency.</i>										
Lower Yanktonnais Sioux	854	2, 444	154	96	(d)	(d)	(d)		80	40
Upper Yanktonnais Sioux	468									
Oncapapa Sioux	532									
Blackfeet Sioux	590									
<i>Yankton agency.</i>										
Yankton Sioux.....	2, 112	2, 112	375	479	350	75	358	5	500	20
IDAHO.										
<i>Fort Hall agency.</i>										
Bannock	672	1, 100	102	30	130		224		1	
Shoshone.....	1, 033									
<i>Lemhi agency.</i>										
Shoshone.....	950	450	26				6			
Bannock										
Sheepeater										
<i>Nez Percé agency.</i>										
Nez Percé on reserve.....	1, 156	1, 156	242	250	246	12	213	3	170	5
Nez Percé off reserve.....	500									
<i>Indians in Idaho not under an agent.</i>										
Pend d'Oreille and Kootenai.....	600									
INDIAN TERRITORY.										
<i>Cheyenne and Arapaho agency.</i>										
Cheyenne	3, 298	3, 298	52	10		3			4	2
Arapaho	2, 676	2, 676								
<i>Kiowa and Comanche agency.</i>										
Kiowa.....	1, 120	1, 120	82	33	Few.	3	Few.		18	15
Comanche	1, 475	1, 475								
Apache.....	344	344								
<i>Osage agency.</i>										
Osage	e2, 391	2, 000	e150	e125					e125	
Kaw	e424	400	e65	e25					e17	
<i>a</i> For education. <i>b</i> For other purposes. <i>d</i> Nearly all.										

Indians, by tribes and their respective agencies—Continued.

Educational.												Religious.			Vital.	
Number of children of school age.	Number who can be accommodated in schools.		No. of schools.		Number attending school one month or more during the year.		Average attendance.	Number of months during which school has been maintained.	Amount expended for education during the year.	Number of Indians who can read.	Number who have learned to read within the year.	Number of church buildings.	Number of missionaries.	Amount contributed by religious societies during the year.	Number of births.	Number of deaths.
	Boarding.	Day.	Boarding.	Day.	Male.	Female.										
1,200	.....	.....	.....	1	32	26	38	7	\$400	18	13	1	.....	.....	223	140
1,200	.....	25	.....	1	53	50	60	7	500	23	.....	.....	2	{ a\$350 b1,430 }	.....	.....
300	50	50	2	1	68	54	96	10	5,836	955	25	5	.....	{ a800 b2,510 }	50	32
400	38	32	2	.....	35	25	45	12	1,467	20	10	.....	2	.....	50	60
500	25	320	1	8	182	145	201	10	9,952	400	50	7	4	{ a7,352 b3,825 }	.....	.....
200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
200	.....	23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8
235	60	11	2	1	33	19	48	10	7,553	220	20	2	.....	a775	.....	.....
.....																
.....																
720	145	.....	1	.....	70	72	119	12	8,837	116	56	.....	1	b75	183	148
500	75	20	1	.....	51	24	69	8½	4,276	25	1	.....	.....	{ a84 b40 }	.....	.....
400	150	.....	e1	.....	e140	e30	{ e150 ef6 }	{ e7 ef12 }	e5,500	e144	e50	e1	e2	{ ae50 be250 }	.....	.....
100	50	.....	e1	.....	e47	e12	e55	e9	e5,225	e97	e16	.....	.....	{ be50 ce250 }	.....	.....

e From report of 1877.

f Osage Catholic mission in Kansas.

Table of statistics relating to population, education, &c., among

Name of agency and tribe.	Population.	Number habitually on reserve.	Number of Indians who wear citizen's dress.		Number of Indian families engaged in civilized pursuits.	Number of mixed-blood families engaged in civilized pursuits.	Number of full-blood male Indians engaged in civilized pursuits.	Number of Indian apprentices.	Number of houses occupied by Indians.	Number of Indian houses built during the year.
			Male.	Female.						
INDIAN TERRITORY—Continued.										
Pawnee agency.										
Pawnee	1, 438	1, 438	50	65	284	5	300	5	25	14
Ponca agency.										
Ponca	620	620	25	3	.....	.....	4	6	.....	.....
Quapaw agency.										
Quapaw	235	100	112	123	237	52	505	.....	17	.....
Modoc	103	103	50	53					20	2
Seneca	242	242	112	117					154	9
Wyandotte	260	260	124	136					158	10
Eastern Shawnee	86	86	41	43					34	8
Ottawa of Blanchard's Fork and Roche de Bœuf	137	137	72	65					43	7
Confederated Peoria and Miami .. {	197	197	86	111					98	9
Nez Percé	391	391	.....	.....	.....	.....	.....	.....	.....	.....
Stray Black Bob and Pottawatomie ..	100	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sac and Fox agency.										
Sac and Fox of Mississippi	433	433	24	24	65	15	95	1	62	3
Mexican Kickapoo	375	375	3	.....	60	.....	125	.....	7	5
Absentee Shawnee	661	661	335	326	105	.....	155	.....	250	25
Citizen Pottawatomie	250	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mokohoko's band of Sac and Fox ..	150	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union agency.										
Cherokee	a18, 672	18, 672	9, 379	9, 293	.....	.....	.....	.....	a3, 730	} ..
Choctaw	a16, 000	16, 000	7, 500	8, 500	.....	.....	.....	.....	a3, 200	
Creek	a14, 000	14, 000	6, 500	7, 500	.....	.....	.....	.....	a4, 000	
Seminole	a2, 443	2, 443	1, 155	1, 288	.....	.....	.....	.....	a600	
Chickasaw	a5, 600	5, 600	2, 600	3, 000	.....	.....	.....	.....	a1, 000	
Wichita agency.										
Wichita	206	}	158	320	.....	.....	.....	1	206	43
Waco	65									
Towaconie	160									
Keechie	87									
Caddo (including Delaware)	652									
Comanche	165									
IOWA.										
Sac and Fox agency.										
Sac and Fox	341	141	55	40	30	4	70	.....	.....	.....
KANSAS.										
Pottawatomie agency.										
Pottawatomie (Prairie band)	450	440	159	218	93	4	93	.....	104	3
Kickapoo	228	228	100	122	63	.....	128	.....	57	2
Chippewa and Munsee	59	.....	.....	.....	.....	.....	.....	.....	.....	.....

a From report of 1877.

Indians, by tribes and their respective agencies—Continued.

Educational.												Religious.			Vital.							
Number of children of school age.	Number who can be accommodated in schools.		No. of schools.		Number attending school one month or more during the year.		Average attendance.	Number of months during which school has been maintained.	Amount expended for education during the year.	Number of Indians who can read.	Number who have learned to read within the year.	Number of church buildings.	Number of missionaries.	Amount contributed by religious societies during the year.	Number of births.	Number of deaths.						
	Boarding.	Day.	Boarding.	Day.	Male.	Female.																
323	85	65	.....	2	77	47	84	.....	\$1,800	120	20	.....	.....	c\$350	.....	.....						
84	.....	.....	.....	.....	.....	.....	.....	.....	.....	25	.....	.....	.....	.....	45	85						
334	200	100	{	1	{	15	9	16	12	2,565	24	3			b400	4	4					
						11	16	23	12	3,019	28	8			b400	6	11					
						21	18	19	12	2,565	38	17			b360	17	10					
						22	28	24	12	3,133	145	15	1		b448	8	4					
						13	11	12	12	1,477	13	3			b191	2	1					
						26	21	23	12	2,594	74	11	1		b100	14	8					
						{	26	25	37	12	1,048	82	9				8	4				
							18	10	15	9												
																						
																						
84	50	.....	1	.....	26	25	37	12	4,362	32	15	.....	.....	b50	15	14						
50	.....	.....	.....	.....	.....	.....	.....	.....	.....	30	10	.....	.....	.....	25	15						
141	50	.....	1	.....	32	29	41	11	4,339	26	15	.....	.....	b50	20	20						
.....																						
17,000	1,200	13,500	{	4	80	a1,600	a1,400	.....	a10	a73,441	a15,000	.....	a30	a36	.....	.....						
						a600	a600	.....	a9	a27,534	a10,000	.....	a24	a7	.....	.....						
						a375	a341	.....	a10	a13,000	a3,000	.....	a35	a4	.....	.....						
						a80	a100	.....	a9	a2,800	a500	.....	a3	a2	.....	.....						
						a250	a150	.....	a10	a21,000	a2,500	.....	a10	a3	.....	.....						
																						
																						
200	100	.....	1	.....	54	41	75	10	3,003	117	.....	.....	2	{	b280	.....						
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	c932	.....	.....						
65	.....	44	.....	.....	.....	.....	.....	.....	.....	25	10	.....	.....	.....	.....	.....						
65	50	.....	1	.....	24	13	28	12	4,000	88	33	.....	.....	.....	11	13						
50	40	.....	1	.....	13	11	18	12	3,500	60	20	1	.....	b100	9	7						

b For education.

c For other purposes.

Table of statistics relating to population, education, &c., among

Name of agency and tribe.	Population.	Number habitually on reserve.	Number of Indians who wear citizen's dress.		Number of Indian families engaged in civilized pursuits.	Number of mixed-blood families engaged in civilized pursuits.	Number of full-blood male Indians engaged in civilized pursuits.	Number of Indian apprentices.	Number of houses occupied by Indians.	Number of Indian houses built during the year.
			Male.	Female.						
MICHIGAN.										
Mackinac agency.										
Chippewa of Saginaw, Swan Creek, and Black River.....	2,000	2,000	4,500	5,300	(a)	(a)	All..	.....	b1,000	.....
Pottawatomie	300	.....								
Chippewa of Lake Superior	1,500	1,500								
Ottawa and Chippewa	6,000	6,000								
MINNESOTA.										
Leech Lake agency.										
Pillager and Lake Winnebagoishish Chippewa	1,501	778	95	800	450	30	{ 45 }	{ .. }	70	12
Mississippi Chippewa at White Oak Point.....	778	200								
Red Lake agency.										
Chippewa of Red Lake.....	1,163	1,163	285	440	230	20	75	.....	53	10
White Earth agency.										
Mississippi Chippewa at White Earth	850	1,450	594	679	85	52	170	...	200	.....
Mississippi Chippewa at Mille Lac..	579									
Mississippi Chippewa at Snake River	368									
Otter Tail Pillager Chippewa.....	520									
Pembina Chippewa.....	541									
MONTANA.										
Blackfeet agency.										
Blackfeet, Blood, and Piegan.....	7,600	7,600	70	120	10	.....	10	.....	15	8
Crow agency.										
Mountain Crow	2,100	.....	18	33	.....	.....	.....	2	.....	.....
Flathead agency.										
Flathead	100	1,100	275	680	100	20	300	4	190	15
Pend d'Oreille	868									
Kootenai	322									
Flathead in Bitter Root Valley.....	295									
Fort Belknap agency.										
Gros Ventre.....	1,000	.....	.....	.....	.....	.....	.....	.....	.....	.....
Assinnaboine.....	884	.....	.....	.....	.....	.....	.....	.....	.....	.....
River Crow.....	1,200	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort Peck agency.										
Yanktonnais Sioux.....	3,780	3,780	.....	.....	10	.....	.....	.....	12	1
Assinnaboine.....	1,615	1,615								
NEBRASKA.										
Great Nemaha agency.										
Iowa	213	213	105	106	36	19	48	.....	43	7
Sac and Fox of the Missouri	107	107	40	30	17	.....	17	.....	6	.....

a Nearly all.

b From report of 1877.

c For education.

d For other purposes.

Indians, by tribes and their respective agencies—Continued.

Educational.											Religious.				Vital.	
Number of children of school age.	Number who can be accommodated in schools.		No. of schools.		Number attending school one month or more during the year.		Average attendance.	Number of months during which school has been maintained.	Amount expended for education during the year.	Number of Indians who can read.	Number who have learned to read within the year.	Number of church buildings.	Number of missionaries.	Amount contributed by religious societies during the year.	Number of births.	Number of deaths.
	Boarding.	Day.	Boarding.	Day.	Male.	Female.										
1,450	.....	400	....	8	174	147	260	10	\$2,800	500	65	17	6	d\$2,000	....	....
429	22	20	1	....	21	22	23	8	2,636	55	9	....	....	{ c136 d34 }	{ 51 }	48
150	30	10	1	....	23	20	32	9	2,500	20	10	1	3	de380	40	38
314	100	25	1	1	74	67	99	9	4,000	350	55	3	4	d5,632	115	102
1,200	.....	90	....	1	20	30	37	12	1,500	4	2	..	....	.....	209	200
400	.....	100	....	1	45	35	30	11	1,000	25	19	....	....	.....	.....	.....
300	70	10	1	1	28	32	42	11	2,100	55	5	1	10	.....	.....	.....
.....																
225	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1,000	.....	100	....	2	15	20	28	9	900	8	5	.....	.....	.....	.....	.....
46	30	20	1	....	30	21	32	10	2,952	110	10	.....	.....	767	11	11
16	16	.....	1	....	8	5	10	10	1,734	16	2	.....	.....	.....	9	8

e Also seven cows for distribution to chiefs.

Table of statistics relating to population, education, &c., among

Name of agency and tribe.	Population.	Number habitually on reserve.	Number of Indians who wear citizen's dress.		Number of Indian families engaged in civilized pursuits.	Number of mixed-blood families engaged in civilized pursuits.	Number of full-blood male Indians engaged in civilized pursuits.	Number of Indian apprentices.	Number of houses occupied by Indians.	Number of Indian houses built during the year.
			Male.	Female.						
NEBRASKA—Continued.										
Omaha agency.										
Omaha	1,100	1,100	100	92	206	30	230	2	95	10
Otoe agency.										
Otoe and Missouri	443	443	112	109	All..	All..	All..	.....	12	.....
Santee agency.										
Santee Sioux	757	757	371	386	142	9	328	3	124	22
Winnebago agency.										
Winnebago agency	1,444	700	694	1	200	100	200	.....	125	.....
NEVADA.										
Nevada agency.										
Pah-Ute	1,150	200	.....	.....	30	.....	200	.....	8	2
Pi-Ute	1,927		765	935	.....	.....	.....	.....	.....	.....
Northwestern Shoshones	300		.....	.....	.....	.....	.....	.....	.....	.....
Western Shoshone agency.										
Western Shoshone	3,000	.....	1,390	1,510	.....	.....	.....	.....	.....	.....
Gosh Ute	600		.....	.....	.....	.....	.....	.....	.....	.....
NEW MEXICO.										
Abiquiu agency.										
Jicarilla Apache	769	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mescalero agency.										
Mescalero Apache	1,400	1,200	50	.....	45	.....	60	.....	.....	.....
Navajo agency.										
Navajo	11,850	7,110	15	10	3,200	.....	All..	.....	.....	.....
Pueblo agency.										
Pueblo	8,400	8,400	2,500	1,500	2,287	.....	All..	.....	1,450	.....
NEW YORK.										
New York agency.										
Seneca	{	824	926	441	485	All..	All..	All..	2	180
Onondaga										
Seneca	{	1,412	1,643	810	833	All..	All..	All..	4	269
Onondaga										
Cayuga	{	186	79	40	39	.....	18	.....	1	18
Seneca, Cornplanter reserve										
Seneca	{	574	625	316	309	150	.....	All..	2	127
Oneida										
Cayuga	{	34	.....	.....	.....	.....	.....	.....	.....	.....
Onondaga										
Tuscarora	{	50	466	238	228	82	.....	All..	4	94
Onondaga										

a Only 300 on reserve.

Indians, by tribes and their respective agencies—Continued.

Educational.												Religious.			Vital.	
Number of children of school age.	Number who can be accommodated in schools.		No. of schools.		Number attending school one month or more during the year.		Average attendance.	Number of months during which school has been maintained.	Amount expended for education during the year.	Number of Indians who can read.	Number who have learned to read within the year.	Number of church buildings.	Number of missionaries.	Amount contributed by religious societies during the year.	Number of births.	Number of deaths.
	Boarding.	Day.	Boarding.	Day.	Male.	Female.										
200	.....	90	.....	2	45	46	76	9	\$2,253	135	23	.....	1	.....	55	19
80	60	.....	1	.....	24	19	19	10	2,910	30	8	.....	.....	.....	40	31
110	116	124	4	4	108	78	84	11	9,756	300	20	6	4	{ c\$7,225 d5,909 }	39	41
572	80	100	1	3	79	31	60	10	4,855	175	25	...	1	c155	50	30
75	.....	75	.....	1	21	9	23	5½	600	20	20	.....	.....	.....	83	33
.....																
600	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	300	300
.....																
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	2
400	.....	35	.....	1	10	20	25	.....	.....	f4	.....	.....	.....	.....	.....	.....
2,500	.....	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
800	.....	200	.....	6	167	76	78	12	5,744	105	70	19	.....	c2,405	.....	.....
270	40	230	1	7	112	119	109	8	4,997	369	69	1	2	{ c3,000 d300 }	.....	.....
507	95	412	1	10	284	280	329	8	11,793	754	82	3	4	{ c250 d1,150 }	.....	.....
30	.....	30	.....	1	15	15	20	6	250	45	7	.....	.....	.....	.....	.....
158	.....	158	.....	3	56	47	79	9½	1,876	185	19	2	1	d300	.....	.....
118	.....	118	.....	2	25	26	36	8	581	176	25	1	1	d200	.....	.....

f From report of 1877.

c For education.

d For other purposes.

Table of statistics relating to population, education, &c., among

Name of agency and tribe.	Population.	Number habitually on reserve.	Number of Indians who wear citizen's dress.		Number of Indian families engaged in civilized pursuits.	Number of mixed-blood families engaged in civilized pursuits.	Number of full-blood male Indians engaged in civilized pursuits.	Number of Indian apprentices.	Number of houses occupied by Indians.	Number of Indian houses built during the year.
			Male.	Female.						
New York agency—Continued.										
Onondaga. } Onondaga reserve. {	312 }	394	194	200	75	All..	All..	2	77	2
Oneida.... }	76 }									
Oneida, Oneida reserve.....	184									
Saint Regis, Saint Regis reserve ...	766	766	369	397	All..	All..	All..	2	138	2
NORTH CAROLINA.										
Eastern Cherokees in North Carolina, Georgia, South Carolina, and Tennessee c	2, 2 0		1, 105	1, 095					305	
OREGON.										
Grande Ronde agency.										
Rogue River, Umpqua, Calapooia, Molel, Clackama, Oregon City, Wappato, Yamhill, Luckiamut, Mary's River, Santiam, Cow Creek, Shasta, Salmon River, Neztucca, Tillamook	807	800	307	500	100	7	All d		c201	25
Klamath agency.										
Klamath	681	931	373	352	50		50	3	50	8
Modoc	102									
Walpahpee or Yahooskin Snake ...	148									
Malheur agency.										
Pi-Ute	454	600	72	94	12		222			
Snake	204									
Shoshone.....	139									
Siletz agency.										
Toootootena.....	137	800	446	439	175	2	All		192	42
Alsea	108									
Joshua	84									
Coquell	84									
Sixes.....	74									
Chetco	63									
Euchre.....	59									
Nultnatna.....	57									
Rogue River	54									
Chasta Costa	47									
Neztucca.....	45									
Klamath	45									
Galise Creek	18									
Salmon River	14									
Sinselaw, Coos and Umpqua	200									
Umatilla agency.										
Walla-Walla	290	1, 023	21	403	All	1	350	...	18	6
Cayuse.....	383									
Umatilla	200									
Columbia River	150									

c Taken from report of 1877.

d Nearly.

Indians, by tribes and their respective agencies—Continued.

Educational.												Religious.			Vital.	
Number of children of school age.	Number who can be accommodated in schools.		No. of schools.		Number attending school one month or more during the year.		Average attendance.	Number of months during which school has been maintained.	Amount expended for education during the year.	Number of Indians who can read.	Number who have learned to read within the year.	Number of church buildings.	Number of missionaries.	Amount contributed by religious societies during the year.	Number of births.	Number of deaths.
	Boarding.	Day.	Boarding.	Day.	Male.	Female.										
112	.....	112	....	2	45	47	37	7½	\$506	75	24	2	2	{ a\$200 b500 a200 a300	.....	.....
50	.....	50	...	2	11	12	15	8	423	56	11	1	1		.....	.....
170	.....	170	....	2	35	37	28	9	552	109	22	1	1		.....	.....
																
400	.....	200	....	7	40	35	75	6	.....	700	25	.....	.....	.....	.....	.....
175	70	.....	1	....	15	26	35	11	3,150	150	11	1	1	.....	40	30
241	30	.....	1	....	18	9	22	10½	2,600	35	9	.....	.....	.....	25	23
285	.....	75	....	1	27	28	18	7	600	8	2	.....	.....	.....	24	8
230	.....	75	....	1	42	28	25	11½	1,252	155	25	.....	.....	.....	19	15
90	.....	65	....	1	12	16	25	10	800	20	10	1	.....	.....	150	14

a For education.

b For other purposes.

Table of statistics relating to population, education, &c., among

Name of agency and tribe.	Population.	Number habitually on reserve.	Number of Indians who wear citizen's dress.		Number of Indian families engaged in civilized pursuits.	Number of mixed-blood families engaged in civilized pursuits.	Number of full-blood male Indians engaged in civilized pursuits.	Number of Indian apprentices.	Number of houses occupied by Indians.	Number of Indian houses built during the year.
			Male.	Female.						
OREGON—Continued.										
Warm Springs agency.										
Wasco	211	400	204	176	100		100		80	4
Warm Spring	216									
Tenino	73									
Indians roaming on Columbia River.	1,400									
UTAH.										
Uintah Valley agency.										
Uintah Ute	430	290		20	82		104		6	3
Indians in Utah not under any agent.										
Pah Vant <i>a</i>	134									
Goship Ute <i>a</i>	256									
WASHINGTON.										
Colville agency.										
Cœur d'Alène	450	962	1,469	1,579	1,000		1,000		111	26
Spokane	685									
Colville	650									
Lake	242									
Calispel	395									
O'Kinakan	330									
San Poel	390									
Methow	315									
Neah Bay agency.										
Makah	713	713	100	100	25		6	1	5	1
Quillehute	309									
Puyallup agency.										
Puyallup	560	530	898	834	74	13	All		114	25
Olympia	43									
Nisqually	165	114								
South Bay	30									
Squaxin	100	20								
Mud Bay	40									
Chehalis	205	50								
Shoalwater Bay	103	25								
Gray's Harbor	164									
Cowlitz	66									
Cowlitz Klikatat	105									
Louis River	104									
Gig Harbor	46									
Quinaielt agency.										
Quinaielt	125	125	101	100	30		100		10	
Queet	102	102								
Hoh	82									
S'Kokomish agency.										
S'Kokomish, or Twana	250	225	365	435	45		50	1	150	
S'Klallam, or Clallam	550									

a Taken from report of Messrs. Powell and Ingalls, 1873.

Indians, by tribes and their respective agencies—Continued.

Educational.												Religious.			Vital.	
Number of children of school age.	Number who can be accommodated in schools.		No. of schools.		Number attending school one month or more during the year.		Average attendance.	Number of months during which school has been maintained.	Amount expended for education during the year.	Number of Indians who can read.	Number who have learned to read within the year.	Number of church buildings.	Number of missionaries.	Amount contributed by religious societies during the year.	Number of births.	Number of deaths.
	Boarding.	Day.	Boarding.	Day.	Male.	Female.										
87	25	50	.....	1	36	14	25	10	\$830	35	5	.....	2	.....	15	16
.....																
30	.....	30	.....	1	10	.....	8	8½	358	7	5	.....	.....	.....	8	10
.....																
.....																
579	40	.....	1	.....	10	30	30	11	2,000	89	26	7	2	.....	.....	.....
225	75	.....	1	...	19	21	34	12	3,600	30	8	1	.....	.....	14	12
102	50	15	1	.....	23	8	30	12	3,400	44	14	.....	.....	b\$100	29	15
8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	c40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
90	40	.....	1	.....	22	8	20	11	1,712	14	5	.....	.....	.....	1	8
{ 50 } { 100 }	25	50	1 { 1 }	{ 1 }	47	23	35	{ 10½ } { 4½ }	3,000	45	12	1	2	b400	6	14

b For other purposes.

c A boarding-school building, but no school for want of funds.

Table of statistics relating to population, education, &c., among

Name of agency and tribe.	Population.	Number habitually on reserve.	Number of Indians who wear citizen's dress.		Number of Indian families engaged in civilized pursuits.	Number of mixed-blood families engaged in civilized pursuits.	Number of full-blood male Indians engaged in civilized pursuits.	Number of Indian apprentices.	Number of houses occupied by Indians.	Number of Indian houses built during the year.
			Male.	Female.						
WASHINGTON—Continued.										
<i>Tulalip agency.</i>										
D'Wamish, and allied tribes	2,900	.....	1,400	1,500	75	6	600	....	150	7
<i>Yakama agency.</i>										
Yakama, and allied tribes	3,770	2,700	1,207	1,508	640	4	700	20	240	17
WISCONSIN.										
<i>Green Bay agency.</i>										
Oneida	1,425	1,425	739	686	402	.....	402	....	260	30
Stockbridge	122	122	61	61	36	7	36	....	30	5
Menomonee	1,445	1,445	550	556	300	20	386	....	200	60
<i>La Pointe agency.</i>										
Chippewa, Red Cliff	726	.....	316	410	176	21	176	....	27	1
Chippewa, Bad River	734	.....	294	322	172	48	250	....	78	2
Chippewa, Lac Courte d'Oreilles....	1,088	.....	346	414	250	46	300	....	a47	....
Chippewa, Lac du Flambeau.....	542	.....	215	248	150	28	150	....	a2	....
Chippewa, Fond du Lac	404	.....	198	274	50	78	85	....	a10	....
Chippewa, Grand Portage	262	.....	107	109	50	7	60	....	a16	....
Chippewa, Boise Fort.....	797	.....	167	175	100	100	150	....	1	....
<i>Indians in Wisconsin not under an agent.</i>										
Winnebago.....	900	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pottawatomie (Prairie Band)	280	.....	.....	.....	.....	.....	.....	.....	.....	.....
WYOMING.										
<i>Shoshone agency.</i>										
Eastern Shoshone	1,250	1,250	.....	.....	} 200	20	{ 272	.....	15	3
Northern Arapahoes	938	938	70	70				.....		
INDIANS IN INDIANA, FLORIDA, AND TEXAS.										
Miami, Seminole, Lipan, Tonkawa..	1,000	.....	.....	.....	.....	.....	.....	.....	.....	.....

a Taken from report of 1877.

RECAPITU

Number of Indians in the United States exclusive of those in Alaska	250,864
Number of Indians who wear citizen's dress: male (a) 61,467; female (a) 65,983	127,450
<i>Five civilized tribes in Indian Territory:</i>	
Number of houses occupied by Indians (a)	12,530
Number of schools: boarding, 11; day, 187	198
Number of scholars attending school one month or more during year: male, (a) 3,169; female, (a) 2,824	5,993
Number of teachers (a)	196
Number of children of school age (b)	17,000
Number who can be accommodated in schools: boarding, 1,200; day, 13,500	14,700
Amount expended for education during the year (a)	\$137,775
Number who can read (a)	31,000
Number of church buildings (a)	102
Number of missionaries, not included under teachers (a)	52
<i>Other Indian tribes:</i>	
Number of houses occupied by Indians	10,530
Number of Indian houses built during the year: by Indians, 656; for Indians, 89	745

(a) Taken from report of 1877.

(b) Estimated.

Indians, by tribes and their respective agencies—Continued.

Educational.												Religious.			Vital.		
Number of children of school age.	Number who can be accommodated in schools.		No. of schools.		Number attending school one month or more during the year.		Average attendance.	Number of months during which school has been maintained.	Amount expended for education during the year.	Number of Indians who can read.	Number who have learned to read within the year.	Number of church buildings.	Number of missionaries.	Amount contributed by religious societies during the year.	Number of births.	Number of deaths.	
	Boarding.	Day.	Boarding.	Day.	Male.	Female.											
410	85	.....	2	.....	27	29	56	12	\$3,500	180	40	6	2	.....	75	30	
625	70	.....	1	1	70	32	65	9	2,500	275	40	2	2	b1,000	.....	.....	
349	.....	200	.....	3	99	94	89	9	2,597	200	75	2	.....	{ c484 b852	.....	.....	
22	.....	25	.....	1	7	13	10	6	180	96	.....	1	.....	.....	5	10	
304	50	.....	1	...	48	44	29	7	1,940	110	15	3	1	.....	72	89	
800	25	125	{	.....	1	21	12	14	9	700	209	12	.....	.....	36	25	
				1		10	12	22	12	4,844	105		2	1	{ c2,349 b300	{ 17	18
				.....	1	16	25	10	.....	500	35	.....	.....	.....	.....	.....	
				.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....		
				.....	.....	.....	.....	.....	.....	.....	34	.....	.....	.....	.....		
				.....	1	6	7	6	.....	550	79	.....	1	.....	.....		
.....	.....	.....	.....	.....	.....	.....	.....	.....	93	.....	.....	.....	.....	.....	.....		
.....																	
.....																	
600	.....	35	{	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
																	
.....																	

b For other purposes.

c For education.

LATION.

Number of schools: boarding, 49; day, 119	168
Number of teachers: male, 92; female, 129	221
Number of scholars attending school one month or more during the year: male, 3,462; female, 2,767	6,229
Average attendance during the year	4,142
Number of children of school age (c)	32,213
Number who can be accommodated in schools: boarding, 2,589; day, 5,082	7,671
Amount expended for education during the year	\$215,350
Number of Indians who can read	10,309
Number who have learned to read during the year	1,532
Number of Indian apprentices who have been learning trades during the year	104
Number of church buildings	117
Number of missionaries, not included under teachers	174
Amount contributed by religious societies during the year	\$66,759
Number of births	2,941
Number of deaths	2,219

(c) An underestimate, many tribes not being reported. Fifty thousand would probably be nearer the correct number.

Table showing agricultural improvements, stock, productions,

Name of agency and tribe.	Lands.						Produce raised during the year by Indians.			
	Number of acres in reserve.	Number of acres tillable.	Number of whites unlawfully on reserve.	Amount of land occupied by white intruders, number of acres.	Number of acres cultivated during the year by government.	Number of acres cultivated during the year by Indians.	Bushels of wheat.	Bushels of corn.	Bushels of oats and barley.	Bushels of vegetables.
ARIZONA.										
<i>Colorado River agency.</i>										
Mohave.....	128, 000	80, 000				100				
<i>Pima and Maricopa agency.</i>										
Papago.....	70, 400	*8, 000				2, 500	6, 000	500	300	75
Pima and Maricopa....	64, 995	11, 000				3, 500	25, 000	50	3 000	
<i>San Carlos agency.</i>										
Pinal, Aribaipa, Tonto, Coyotero, Chiricahua, Southern, and White Mountain Apaches, and Apache Mohaves, and Apache Yumas..	2, 528, 000	1, 600	200	12, 800		120	100	4, 000	150	70
<i>Moquis Pueblo agency.</i>										
Moquis Pueblo†.....		10, 000			10	3, 700	200	7, 000		75
CALIFORNIA.										
<i>Hoopa Valley agency.</i>										
Hoopa.....	89, 572	900			50		850			
<i>Round Valley agency.</i>										
Potter Valley, Ukie, Pit River, Redwood, Wylackie, Concow, Little Lake.....	207, 360	2, 000	15		1, 200	300		50		225
<i>Tule River agency.</i>										
Tule, Tejon.....	48, 551	200			30	170	500	250	100	60
Mission Indian lands...	60, 000									
COLORADO.										
<i>Los Pinos agency.</i>										
Ute.....		500, 000	300	40, 000	25	135	30	50		620
<i>Southern Ute agency.</i>										
Ute.....		8, 000								
<i>White River agency.</i>										
Ute.....	†11, 724, 800				20	3				10
DAKOTA.										
<i>Cheyenne River agency.</i>										
Two Kettle, Sans Arc, Mineconjou, and Blackfeet Sioux.....	§24, 320, 000	25 000	16	150		320		2, 556		145
<i>Crow Creek agency.</i>										
Lower Yanktonais Sioux.....	622, 320	400, 000			72	158		1, 000		125
<i>Devil's Lake agency.</i>										
Sisseton, Wahpeton, and Cuthead Sioux...	230, 400	150, 000			5	495	500	10, 000	525	16, 500

* Taken from last year's report.

† Lands included in Navajo reserve in New Mexico.

‡ Includes and Lower

and sources of subsistence of the different Indian tribes.

year	Other results of Indian labor.				Stock owned by Indians.					No. of allotments in severalty to—		Per cent. of subsistence obtained by—		
Tons of hay cut.	Feet of lumber sawed.	Cords of wood cut.	Rods of fencing made.	Value of robes and furs sold.	Horses.	Mules.	Cattle.	Swine.	Sheep.	Full-blood Indians.	Mixed-blood Indians.	Indian labor in civilized pursuits.	Fishing, hunting, root-gathering, &c.	Issue of government rations.
.....	.....	100	.....	.....	*140	.....	.....	.....	.....	.....	.....	50	50	....
375	.....	200	200	.....	*4,000	*275	*3,000	.....	.....	.....	.....	75	25	....
50	.....	.....	300	.....	*1,850	*12	*800	.....	.....	.....	.....	100	.....	.....
200	.....	.....	100	.....	931	112	521	.....	761	.....	.....	10	10	80
.....	.....	.....	.....	.....	250	250	.....	.....	5,000	.....	.....	75	25	.....
40	.....	.....	.....	.....	*80	.....	*4	*9	.....	.....	.....	50	50	....
15	.....	237	1,730	.....	*140	.....	*100	*200	.....	.....	.....	13	50	37
20	.....	.....	1,000	.....	101	1	10	10	25	25	1	60	7	33
10	37,000	100	525	\$4,500	5,500	25	150	.....	4,500	.....	.....	5	45	50
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	100	....
.....	20,000	5	50	5,000	3,000	20	1,222	.....	.....	.....	.....	.....	66	34
2,500	.....	1,200	.....	75	1,235	5	2,120	78	.....	.....	.....	.....	.....	100
350	.....	50	850	.....	230	7	100	2	.....	.....	.....	10	.....	90
925	35,000	1,211	1,500	2,500	364	.....	200	64	.....	.....	.....	70	5	25

Southern Ute agency and Los Pinos agency.
Brulé agencies.

§ Includes Red Cloud, Spotted Tail, Standing Rock,

Table showing agricultural improvements, stock, productions, and

[illegible]

sources of subsistence of the different Indian tribes—Continued.

year	Other results of Indian labor.				Stock owned by Indians.					No. of allotments in severalty to—		Per cent. of subsistence obtained by—		
Tons of hay cut.	Feet of lumber sawed.	Cords of wood cut.	Rods of fencing made.	Value of robes and furs sold.	Horses.	Mules.	Cattle.	Swine.	Sheep.	Full-blood Indians.	Mixed-blood Indians.	Indian labor in civilized pursuits.	Fishing, hunting, root-gathering, &c.	Issue of government rations.
.....	.....	40	.....	\$355	84	.....	197	52	.....	.....	.....	75	25	.....
340	41,100	2,000	100	2,000	850	.....	16	.....	.....	.....	.....	15	10	75
260	.....	150	.....	.....	†1,545	.....	.....	.....	.....	.....	.....	.....	.....	100
.....	.....	.....	.....	.....	†5,000	†500	.....	.....	.....	.....	.....	.....	.....	100
2,500	50,000	750	4,000	500	421	.....	383	.....	.....	264	.....	.....	10	90
.....	.....	.....	.....	.....	†8,000	†50	†50	†20	.....	.....	.....	.....	.....	100
300	20,000	4,900	1,600	.....	†235	†26	†37	.....	.....	.....	.....	20	.....	80
2,000	115,900	700	200	.....	†600	†50	†500	†100	.....	.....	.....	25	.....	75
20	81,000	200	320	.....	†3,500	.....	†50	†20	.....	.....	.....	20	47	33
.....	.....	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	50	50
.....	.....	450	500	.....	11,807	35	3,334	1,037	.....	.....	.....	90	10	.....
100	100,000	205	51,200	657	4,842	312	1,952	40	.....	.....	.....	40	10	50
.....	140,000	.....	3,200	14,875	4,194	128	1,343	.....	.....	.....	.....	3	15	82
.....	12,000	25	.....	.....	108	.....	16	136	.....	.....	.....	75	25	.....
500	.....	200	2,000	.....	3,177	29	2,030	5,227	.....	.....	.....	50	.....	50
600	127,700	250	725	1,000	.....	12	4	.....	.....	.....	.....	30	10	60
75	.....	.....	.....	.....	202	4	2	.....	.....	.....	.....	.....	.....	100

† Taken from last year's report.

Table showing agricultural improvements, stock, productions, and

Name of agency and tribe.	Lands.						Produce raised during Indians.		
	Number of acres in reserve.	Number of acres tillable.	Number of whites unlawfully on reserve.	Amount of land occupied by white intruders, number of acres.	Number of acres cultivated during the year by Government.	Number of acres cultivated during the year by Indians.	Bushels of wheat.	Bushels of corn.	Bushels of oats and barley.
<i>Quapaw agency.</i>									
Confederate Peoria and Miami	50,301	40,000				2,692	873	64,760	5,720
Quapaw	56,685	42,000				200		6,125	
Modoc	4,040	2,500				368	520	8,050	
Wyandotte	21,406	14,000				1,063	987	31,012	2,880
Ottawa	14,860	10,860				840	560	21,105	189
Seneca	51,958	26,958				985	1,129	24,680	1,560
Eastern and Black Bob									
Shawnee	13,048	6,088				689	409	14,560	420
Nez Percé	57,005								
<i>Sac and Fox agency.</i>									
Sac and Fox of the Mississippi	479,667	120,000				585		15,000	
Absentee Shawnee *			5	100		1,245		50,000	500
Mexican Kickapoo *					100	440		9,000	
Pottawatomie	575,877								
<i>Union agency.</i>									
Cherokee	5,031,351	1,000,000	1,000			†75,000	†400,000	1,100,000	†150,000
Creek	3,215,495	400,000				50,000	†68,000	112,000	†15,000
Choctaw	6,688,000	1,200,000				82,000	18,000	700,000	15,000
Chickasaw	4,650,935	1,000,000				†30,000	†8,000	500,000	†20,000
Seminole	200,000	60,000				8,000	†400	230,000	†1,000
Unoccupied Cherokee lands between the Cimarron River and 100th meridian	2,279,618								
Unoccupied Cherokee lands embraced within Arapaho and Cheyenne treaty, reservation east of Pawnee reservation	105,456								
Unoccupied Cherokee lands embraced within Arapaho and Cheyenne treaty, reservation west of Pawnee reservation	3,799,218								
Unoccupied Creek lands embraced within Arapaho and Cheyenne treaty, reservation north of Cimarron River, exclusive of Pawnee reservation	683,139								
Unoccupied Creek and Seminole ceded lands east of 98th meridian	1,645,890								
Unoccupied Chickasaw and Choctaw leased lands west of North Fork of the Red River	1,511,576								
<i>Wichita agency.</i>									
Caddo, Delaware, Comanche, Waco, Wichita, Tawacanie, and Keechie	743,610	†146,000			35	1,900	400	50,000	3,000
IOWA.									
<i>Sac and Fox agency.</i>									
Sac and Fox	692	150				130		500	

* Taken from report of 1876.

* Lands included in Sac and Fox reservation:

Table showing agricultural improvements, stock, productions, and

Name of agency and tribe.	Lands.						Produce raised during the by Indians.			
	Number of acres in reserve.	Number of acres tillable.	Number of whites unlawfully on reserve.	Amount of land occupied by white intruders, number of acres.	Number of acres cultivated during the year by government.	Number of acres cultivated during the year by Indians.	Bushels of wheat.	Bushels of corn.	Bushels of oats and barley.	Bushels of vegetables.
KANSAS.										
<i>Pottawatomie agency.</i>										
Kickapoo	20, 273	10, 136	.....	.....	63	972	400	3, 000	.....	1, 350
Pottawatomie	77, 358	29, 119	.....	.....	63	1, 335	300	35, 000	.....	2, 090
Chippewa and Munsee	4, 395	*4, 000	.....	.....	.....	842	.....	7, 500	400	660
MICHIGAN.										
<i>Mackinac agency.</i>										
Chippewa of Saginaw, Swan Creek and Black River, Chippewa and Ottawa of Lake Superior, and Pottawatomies of Huron	66, 332	65, 000	.....	.....	.....	10, 650	6, 000	10, 400	3, 250	15, 525
MINNESOTA.										
<i>Leech Lake agency.</i>										
Pillager and Lake Winnebagoish Chippewa	414, 440	1, 000	.....	.....	7	163	.....	3, 000	.....	2, 160
<i>Red Lake agency.</i>										
Red Lake Chippewa ...	3, 200, 000	1, 000, 000	.....	.....	10	475	860	9, 500	.....	3, 250
<i>White Earth agency.</i>										
Mississippi, Pembina, and Otter-Tail Pillager Chippewa	796, 672	552, 960	.....	.....	60	1, 604	18, 000	3, 281	5, 630	36, 890
MONTANA.										
<i>Blackfeet agency.</i>										
Blackfeet, Blood, and Piegan	26, 451, 200	3, 000, 000	.....	.....	100	40	.....	.....	2, 000	19, 200
<i>Crow agency.</i>										
Mountain and River Crow	6, 272, 000	*1, 000, 000	.....	.....	40	.....	.....	.....	.....	.....
<i>Flathead agency.</i>										
Flathead, Kootenay, and Pend d'Oreille ...	1, 433, 600	400, 000	.....	.....	10	2, 000	8, 000	.....	4, 510	3, 425
<i>Fort Peck agency.</i>										
Yanctonnais Sioux, Assinaboine, and Gros Ventre .....	.....	100, 000	75	.....	50	50	.....	500	.....	2, 500
NEBRASKA.										
<i>Great Nemaha agency.</i>										
Sac and Fox of Missouri	8, 014	7, 500	.....	.....	.....	130	399	8, 000	582	160
Iowa	16, 000	14, 500	3	.....	6	750	1, 441	32, 000	398	652
<i>Omaha agency.</i>										
Omaha	143, 225	140, 000	.....	.....	9	2, 200	21, 000	32, 000	1, 200	6, 850
<i>Otoe agency.</i>										
Otoe and Missouri	44, 093	40, 000	.....	.....	.....	500	500	2, 000	100	1, 900

* Taken from last year's report.

sources of subsistence of the different Indian tribes—Continued.

year	Other results of Indian labor.				Stock owned by Indians.					No. of allotments in severalty to—		Per cent. of subsistence obtained by—		
Tons of hay cut.	Feet of lumber sawed.	Cords of wood cut.	Rods of fencing made.	Value of robes and furs sold.	Horses.	Mules.	Cattle.	Swine.	Sheep.	Full-blood Indians.	Mixed-blood Indians.	Indian labor in civilized pursuits.	Fishing, hunting, root-gathering, &c.	Issue of government rations.
500			500		*204	*2	*62	*137				60		
2,500			6,000		824	7	423	864	53			60		
250			2,000		*51		*132	*200				100		
625	5 350,000	100,000		\$4,000	191		293	425				60	40	
220	70,000	175	500	2,500	146		25	10		1		90	10	
200	43,000	25	300	3,500	121		18	34				50	50	
2,428			500	2,000	156		665	231	4		1	75	25	
100		125	300	50,000	3,850		100						75	25
	35,000	150	1,400		*10,000	*900							*25	*75
10	125,000		2,000	4,500	2,286		3,323	175				87	10	3
80	35 000		820	3,000	13,500								33	67
300 } 800 }		200	{2,000 } {1,005 }		301	13	235	600				{ 50 } { 75 }	1	50 24
1,400	59,698	500	600		561	8	34	179		300	31	95	5	
400	8,000	1 500	1,200	2,000	452		70	98				75		25

Includes Fort Belknap and Fort Peck agencies.

Table showing agricultural improvements, stock, productions, and

Name of agency and tribe.	Lands.						Produce raised during the by Indians.			
	Number of acres in reserve.	Number of acres tillable.	Number of whites unlawfully on reserve.	Amount of land occupied by white intruders, number of acres.	Number of acres cultivated during the year by government.	Number of acres cultivated during the year by Indians.	Bushels of wheat.	Bushels of corn.	Bushels of oats and barley.	Bushels of vegetables.
<i>Santee agency.</i>										
Santee Sioux.....	115, 076	25, 000	.....	.....	23	977	10, 000	9, 000	800	3, 700
<i>Winnebago agency.</i>										
Winnebago.....	109, 844	100, 000	2	80	65	2, 500	8, 000	30, 000	1, 000	5, 150
NEVADA.										
<i>Nevada agency.</i>										
Pi-Ute, Moapa River...	1, 000	†1, 000	.....	.....	75	100	200	25	150	.....
Pah-Ute, Walker River	318, 815	†1, 000	.....	.....	.....	125	200	.....	125	.....
Pah-Ute, Pyramid Lake	322, 000	5, 000	20	.....	10	275	400	.....	275	.....
Northwestern Shoshone, Carlin Farms.....	522	†500	.....	.....	.....	200	1, 000	.....	250	.....
<i>Western Shoshone agency.</i>										
Shoshone and Gosh Ute.	256, 000	.....	.....	.....	.....	80	1, 000	20	780	360
NEW MEXICO.										
<i>Abiquiu agency.</i>										
Jicarilla Apache.....	No lands.	.....	.....	.....	.....	.....	.....	.....	.....	.....
<i>Mescalero agency.</i>										
Mescalero Apache.....	570, 240	.....	150	.....	.....	.....	.....	.....	.....	.....
<i>Navajo agency.</i>										
Navajo.....	*4, 224, 000	15, 000	.....	.....	8	9, 192	3, 000	175, 000	.....	300
<i>Pueblo and Cimarron agency.</i>										
Pueblo, Muache Ute, and Jicarilla Apache	668, 091	132, 025	.....	.....	.....	.....	.....	.....	.....	.....
NEW YORK.										
<i>New York agency.</i>										
Seneca, Oneida, Onondaga, Cayuga, Tuscarora, and Saint Regis.	86, 366	30, 352	.....	.....	.....	26, 641	18, 365	76, 915	70, 000	63, 563
NORTH CAROLINA.										
<i>Eastern Cherokee special agency.</i>										
Eastern Cherokee.....	65, 211	†5, 000	.....	.....	.....	†5, 000	.....	25, 000	.....	1, 400
OREGON.										
<i>Grand Ronde agency.</i>										
Molel, Clackama, Rogue River, and others.....	61, 440	10, 000	.....	.....	25	2, 000	3, 000	.....	6, 500	1, 250
<i>Klamath agency.</i>										
Klamath, Modoc, and Walpahpe and Ya-hooskin Snake.....	1, 056, 000	20, 000	12	138, 240	10	140	25	.....	.....	200
<i>Malheur agency.</i>										
Pi-Ute, Snake, and Shoshone.....	1 778, 560	12, 000	2	320	140	35	35	.....	4	25

* Includes lands of Moqui-Pueblo agency in Arizona.

sources of subsistence of the different Indian tribes—Continued.

year	Other results of Indian labor.				Stock owned by Indians.					No. of allotments in severalty to—		Per cent. of subsistence obtained by—		
Tons of hay cut.	Feet of lumber sawed.	Cords of wood cut.	Rods of fencing made.	Value of robes and furs sold.	Horses.	Mules.	Cattle.	Swine.	Sheep.	Full-blood Indians.	Mixed-blood Indians.	Indian labor in civilized pursuits.	Fishing, hunting, root-gathering, &c.	Issue of government rations.
800	51,000	600	700	\$1,500	416	3	207	47	3	127	8	45	5	50
800	180,000	150	1,000	500	734	2	85	50	.....	400	100	95	5	.....
.....	12,000	50	.....	.....	{	†100	.....	.....	.....	.....	.....	60	30	10
12						†200	.....	.....	.....	.....	.....	50	40	10
125						†300	.....	.....	.....	.....	.....	60	30	10
25						†150	.....	†150	.....	.....	.....	60	30	10
.....	.....	.....	60	500	†1,500	.....	†60	.....	.....	.....	.....	60	40	.....
.....	.....	.....	.....	.....	†2,400	.....	.....	.....	.....	.....	.....	.....	50	50
.....	.....	.....	.....	.....	†1,200	†250	.....	.....	.....	.....	.....	5	5	90
.....	.....	50	.....	1,200	†20,000	†225	†1,500	.....	500,000	.....	.....	95	.....	5
.....	.....	.....	.....	.....	†2,600	†900	†1,000	.....	.....	.....	.....	100	.....	.....
4,730	.....	5,335	6,595	.....	1,019	2	1,608	2,049	94	.....	.....	100	.....	.....
20	.....	.....	.....	.....	†100	†20	†1,000	†1,800	.....	.....	.....	†95	†5	.....
500	35,000	500	.....	1,000	†629	†28	†339	†418	.....	575	25	95	5	.....
300	50,000	200	200	200	†3,500	†8	†400	.....	.....	.....	.....	50	50	.....
.....	.....	80	.....	500	700	.....	.....	.....	.....	.....	.....	20	30	50

† Taken from last year's report.

Table showing agricultural improvements, stock, productions, and

Name of agency and tribe.	Lands.						Produce raised during the by Indians.			
	Number of acres in reserve.	Number of acres tillable.	Number of whites unlawfully on reserve.	Amount of land occupied by white intruders, number of acres.	Number of acres cultivated during the year by government.	Number of acres cultivated during the year by Indians.	Bushels of wheat.	Bushels of corn.	Bushels of oats and barley.	Bushels of vegetables.
<i>Siletz agency.</i>										
Rogue River, Tootootnay, and others	225,000	2,000	2	.....	10	1,000	1,200	.....	2,800	3,040
<i>Umatilla agency.</i>										
Walla Walla, Cayuse, and Umatilla.....	268,800	150,000	.....	.....	30	3,000	12,000	300	11,000	1,080
<i>Warm Springs agency.</i>										
Warm Spring, Wasco, and Tenino	464,000	3,600	.....	.....	12	1,200	7,000	100	1,000	2,125
UTAH.										
<i>Uintah Valley agency.</i>										
Uintah Ute	2,039,040	320,000	.....	.....	18	245	1,400	300	125	600
WASHINGTON TERRITORY.										
<i>Colville agency.</i>										
Cœur d'Aléne, Spokane, Colville, Lake, Calispel, O'Kinakane, San Poel, and Methow....	2,800,000	2,000	.....	.....	.....	1,957	12,000	300	3,500	2,700
<i>Neah Bay agency.</i>										
Makah and Quillehute.	23,040	100	.....	.....	57	50	.....	.....	.....	300
<i>Puyallup agency.</i>										
Puyallup	18,062	1,200	.....	.....	4	980	635	149	4,465	11,790
Nisqually	4,717	300	.....	.....	.....	300	180	.....	840	2,225
Squaxin	1,494	150	.....	.....	.....	100	10	.....	100	170
Chehalis	4,225	100	.....	.....	.....	60	200	.....	400	100
Shoal Water Bay	335	12	.....	.....	.....	8	.....	.....	2	6
<i>Quinaielt agency.</i>										
Quinaielt, Queet, Hoh, and Quillehute.....	224,000	10,000	.....	.....	12	6	.....	.....	.....	400
<i>S'Kokomish agency.</i>										
S'Klallam, S'Kokomish or Twana	4,987	800	.....	.....	60	150	.....	.....	20	1,125
<i>Tulalip agency.</i>										
D'Wamish, Snohomish, Lummi, Etakmur, Swinomish, and Muckleshoot	52,648	600	.....	.....	40	560	100	100	1,300	7,340
<i>Yakama agency.</i>										
Yakama, Palouse, Piquose, Wenatshepum, Klikatat, Klinquit, Kowassayee, Siaywa, Skinpah, Wisham, Shyik, Ochechole, Kamiltpah, and Seapcat.....	800,000	130,000	.....	.....	1,000	6,000	37,000	2,000	3,000	2,700

* Taken from last

sources of subsistence of the different Indian tribes—Continued.

year	Other results of Indian labor.				Stock owned by Indians.					No. of allotments in severalty to—		Per cent. of subsistence obtained by—		
Tons of hay cut.	Feet of lumber sawed.	Cords of wood cut.	Rods of fencing made.	Value of robes and furs sold.	Horses.	Mules.	Cattle.	Swine.	Sheep.	Full-blood Indians.	Mixed-blood Indians.	Indian labor in civilized pursuits.	Fishing, hunting, root-gathering, &c.	Issue of government rations.
.....	327,000	200	5,000	.....	167	5	153	108	.....	.....	.....	80	16	4
50	104,900	.....	4,200	.....	*17,000	*15	*5,000	*1,000	.....	.....	.....	75	25	.....
115	45,000	.....	2,000	\$300	*3,500	*12	*800	.....	.....	.....	.....	60	40	.....
30	30,000	100	800	1,000	876	.....	773	30	.....	.....	.....	34	33	33
.....	.....	1,000	.....	2,000	*4,850	*8	*1,500	*150	.....	.....	.....	80	20	.....
.....	.....	50	75	8,000	*20	.....	*16	.....	.....	.....	.....	100	.....	.....
900	.....	2,000	730	200	268	3	345	205	46	.....	.....	95	5	.....
35	.....	.....	.....	.....	132	.....	42	6	80	.....	.....	67	33	.....
6	.....	.....	.....	.....	24	.....	27	.....	.....	.....	.....	50	50	.....
50	.....	.....	.....	.....	85	.....	27	.....	.....	.....	.....	67	33	.....
.....	.....	.....	.....	.....	36	.....	.....	.....	.....	.....	.....	75	25	.....
6	.....	.....	20	700	23	.....	2	.....	2	.....	.....	50	50	.....
120	.....	100	.....	.....	72	.....	68	.....	.....	50	.....	75	25	.....
2,600	75,000	1,500	375	1,000	457	.....	832	384	106	.....	.....	75	25	.....
500	300,000	300	.....	1,000	17,000	.....	4,000	.....	.....	.....	.....	90	10	.....

year's report.

sources of subsistence of the different Indian tribes—Continued.

year	Other results of Indian labor.				Stock owned by Indians.					No. of allotments in severalty to—		Per cent. of subsistence obtained by—								
Tons of hay cut.	Feet of lumber sawed.	Cords of wood cut.	Rods of fencing made.	Value of robes and furs sold.	Horses.	Mules.	Cattle.	Swine.	Sheep.	Full-blood Indians.	Mixed-blood Indians.	Indian labor in civilized pursuits.	Fishing, hunting, root-gathering, &c.	Issue of government rations.						
25 610 400	267,332	4,000 200	200 960 1,000	200 960 \$2,000	} 195		86	214		36	6	100								
																		100		
																			90	10
420		500	200	23,000	107		163	19		253	72	50	50							
10	6 000	20	640	2,200	4,000		1,400					13	12	75						

RECAPITULATION.

Stock owned.

Horses, by government,	516; by Indians, 176,766	177,282
Mules, by government,	243; by Indians, 4,479	4,722
Cattle, by government,	2,511; by Indians, 52,867	55,378
Swine, by government,	281; by Indians, 27,671	27,952
Sheep, by government,	1,400; by Indians, 510,674	572,074

Other results of Indian labor.

Feet of lumber sawed	8,100,630
Cords of wood cut	132,888
Value of robes and furs sold	171,462
Number of shingles made	200,600
Number of pounds of maple sugar made	387,000
Number of pounds of wild rice gathered	146,000
Number of pounds of wool sold	211,000
Number of woolen blankets and shawls made	17,000
Number of willow baskets made	2,530
Number of cords of hemlock bark pared for sale	3,800
Number of barrels of fish sold	3,600

LIST OF INDIAN AGENCIES ASSIGNED TO THE SEVERAL RELIGIOUS BODIES.

FRIENDS.—Great Nemaha, Omaha, Winnebago, Otoe, and Santee, in Nebraska, and Pawnee, in the Indian Territory. *B. Rush Roberts, Sandy Spring, Md.*

FRIENDS (ORTHODOX).—Pottawatomie and Kickapoo, in Kansas; Quapaw, Osage, Sac and Fox, Wichita, Kiowa, and Comanche, and Cheyenne and Arapaho, in the Indian Territory. *Dr. James E. Rhoades, Germantown, Philadelphia, Pa.*

METHODIST.—Hoopa Valley, Round Valley, and Tule River, in California; Yakama, Neah Bay and Quinalt, in Washington Territory; Klamath and Siletz, in Oregon; Blackfeet, Crow, and Fort Peck, in Montana; Fort Hall and Lemhi, in Idaho; and Mackinac, in Michigan. *Rev. Dr. J. M. Reid, secretary Missionary Society, Methodist Episcopal Church, 805 Broadway, New York City.*

CATHOLIC.—Tulalip and Colville, in Washington Territory; Grand Ronde and Umatilla, in Oregon; Flathead, in Montana; and Standing Rock and Devil's Lake, in Dakota. *General Charles Ewing, Catholic commissioner, Washington, D. C.*

BAPTIST.—Union (Cherokees, Creeks, Choctaws, Chickasaws, and Seminoles), in the Indian Territory; and Nevada, in Nevada. *Rev. Joseph F. Shoards, secretary American Baptist Home Missionary Society, Astor House, New York City.*

PRESBYTERIAN.—Abiquin, Navajo, Mescalero Apache, Southern Apache, and Pueblo, in New Mexico; Nez Percés, in Idaho; and Uintah Valley, in Utah. *Rev. Dr. J. C. Lowrie, secretary Board of Commissioners for Foreign Missions of the Presbyterian Church, 23 Centre street, New York City.*

CONGREGATIONAL.—Green Bay and La Pointe, in Wisconsin; Red Lake, in Minnesota; Sisseton and Fort Berthold, in Dakota; and S'Kokomish, in Washington Territory. *Rev. Dr. M. E. Strieby, secretary American Missionary Association, 56 Reade street, New York City.*

REFORMED.—Colorado River, Pima and Maricopa, and San Carlos, in Arizona. *Rev. Dr. J. M. Ferris, secretary Board of Missions of Reformed Church, 34 Vesey street, New York City.*

PROTESTANT EPISCOPAL.—White Earth, in Minnesota; Crow Creek, Lower Brulé, Cheyenne River, Yankton, Rosebud, and Pine Ridge, in Dakota; Ponca, in Indian Territory; and Shoshone, in Wyoming. *Rev. Robert C. Rogers, secretary Indian Commission of the Protestant Episcopal Church, 30 Bible House, New York City.*

UNITARIAN.—Los Pinos and White River, in Colorado. *Rev. Rush R. Shippen, secretary American Unitarian Association, 7 Tremont Place, Boston.*

FREE-WILL BAPTIST.—Leech Lake, in Minnesota. *Rev. A. H. Chase, secretary Free-Will Baptist Home Missionary Association, Hillsdale, Mich.*

UNITED PRESBYTERIAN.—Warm Springs, in Oregon. *Rev. John G. Brown, D. D., secretary Home Mission Board United Presbyterian Church, Pittsburgh, Pa.*

CHRISTIAN UNION.—Malheur, in Oregon. *Rev. J. S. Rowland, Salem, Oreg.*

EVANGELICAL LUTHERAN.—Southern Ute, in Colorado. *Rev. J. G. Butler, Washington, D. C.*

MEMBERS OF THE BOARD OF INDIAN COMMISSIONERS, WITH THEIR POST-OFFICE ADDRESS.

E. M. Kingsley, chairman, 30 Clinton Place, New York City.

William Stickney, secretary, New York avenue, corner Fifteenth street, Washington, D. C.

A. C. Barstow, Providence, R. I.

General Clinton B. Fisk, 3 Broad street, New York City.

David H. Jerome, Saginaw, Mich.

John D. Lang, Vassalborough, Me.

W. H. Lyon, 483 Broadway, New York City.

B. Rush Roberts, Sandy Spring, Md.

Charles Tuttle, 32 Park Place, New York City.

Schedule showing location of Indian agencies; also list of agents, with their post-office and telegraphic address.

Agency.	Agent.	Post-office address.	Telegraphic address.
ARIZONA.			
Colorado River.....	H. R. Mallory.....	Parker, Ariz.....	Yuma, Ariz., or Dos Palmes, Cal.
Pima and Maricopa, and Papago.....	J. H. Stout.....	Pima agency, Ariz.....	Florence, Ariz.
San Carlos.....	H. L. Hart.....	Camp Thomas, Ariz., via San Francisco.....	Camp Thomas, Ariz.
Moquis Pueblo.....	Wm. R. Mateer.....	Fort Defiance, Ariz., via New Mexico.....	Santa Fé, N. Mex.
CALIFORNIA.			
Hoopa Valley.....	Henry Rudd.....	Hoopa Valley agency, Humboldt County, Cal.....	Arcata, Cal.
Round Valley.....	H. B. Sheldon.....	Covelo, Mendocino County, Cal.....	Ukiah, Cal.
Tule River.....	C. G. Belknap.....	Porterville, Tulare County, Cal.....	Visalia, Cal.
Mission.....	S. S. Lawson.....	.....	.....
COLORADO.			
Los Pinos.....	L. M. Kelly.....	Los Pinos, Gunnison County, Colo.....	Del Norte, Colo.
Southern Ute.....	Joseph B. Holt.....	Animas City, La Plata County, Colo.....	Animas City, Colo., via Alamosa.
White River.....	N. C. Meeker.....	White River, Colo., via Rawlins, Wyo.....	White River, Colo., via Rawlins, Wyo.
DAKOTA.			
Cheyenne River.....	Theo. Schwan, captain, U. S. A.....	Cheyenne River agency, Ashmore County, Dak.....	Fort Sully, Dak.
Crow Creek.....	W. E. Dougherty, captain, U. S. A.....	Crow Creek agency, Buffalo County, Dak.....	Crow Creek agency, Dak.
Devil's Lake.....	James McLaughlin.....	Fort Totten, Ramsey County, Dak.....	Jamestown, Dak.
Flandreau.....	W. H. H. Wasson.....	Flandreau agency, Flandreau, Dak.....	Flandreau agency, Sioux Falls, Dak.
Fort Berthold.....	Thomas B. Ellis.....	Fort Berthold, Dak.....	Fort Berthold, Dak.
Lower Brulé.....	W. E. Dougherty.....	Lower Brulé agency, Dak.....	Fort Thompson, Dak.
Pine Ridge (Red Cloud).....	James Irwin.....	Pine Ridge agency, Dak., via Sidney.....	Pine Ridge agency, Dak., via Camp Robinson, Nebr.
Rosebud (Spotted Tail).....	W. J. Pollock.....	Rosebud agency, Dak., via Sidney.....	Rosebud agency, Dak., via Camp Robinson, Nebr.
Sisseton.....	E. H. C. Hooper.....	Sisseton agency, Dak., via Saint Paul.....	Morris, Minn.
Standing Rock.....	J. A. Stephan.....	Standing Rock, Dak.....	Standing Rock, via Bismarck, Dak.
Yankton.....	J. W. Douglass.....	Greenwood, Charles Mix County, Dak.....	Yankton agency, Dak.
IDAHO.			
Fort Hall.....	W. H. Danilson.....	Ross Fork, Oneida County, Idaho.....	Ross Fork, Oneida County, Idaho.
Lemhi.....	John A. Wright.....	Fort Lemhi, Idaho, via Bannock City, Mont.....	Eagle Rock, Idaho.
Nez Percé.....	John B. Monteith.....	Lewiston, Nez Percé County, Idaho.....	Walla Walla, Wash., via Portland, Oreg.

Schedule of Indian agencies and address of agents—Continued.

Agency.	Agent.	Post-office address.	Telegraphic address.
INDIAN TERRITORY.			
Cheyenne, and Arapaho ..	John D. Miles.....	Cheyenne and Arapaho agency, Darlington, Ind. T., via Wichita, Kans.	Fort Sill, Ind. T.
Kiowa, Comanche, and Wichita.	P. B. Hunt.....	Kiowa, Comanche, and Wichita agency, Fort Sill, Ind. T.	Fort Sill, Ind. T.
Osage	L. J. Miles	Osage agency, Ind. T., via Coffeyville, Kans.	Coffeyville, Kans.
Pawnee	A. C. Williams	Pawnee agency, Ind. T., via Coffeyville, Kans.	Coffeyville, Kans.
Ponca	W. H. Whiteman	Ponca agency, Ind. T., via Arkansas City, Kans.	Wichita, Kans.
Quapaw	H. W. Jones	Seneca, Newton County, Mo.....	Seneca, Mo.
Sac and Fox	Levi Woodward	Sac and Fox agency, Ind. T., via Okmulgee.....	Muskogee, Ind. T.
IOWA.			
Sac and Fox.....	Thomas S. Free.....	Toledo, Tama County, Iowa	Tama City, Iowa.
KANSAS.			
Kansas	H. C. Linn	Rossville, Shawnee County, Kans	Rossville, Kans.
MICHIGAN.			
Mackinac	George W. Lee.....	Ypsilanti, Washtenaw County, Mich	Ypsilanti, Mich.
MINNESOTA.			
Leech Lake.....	H. J. King	Leech Lake, Cass County, Minn	Brainerd, Minn.
Red Lake	A. D. Baker	Red Lake, Beltrami County, Minn.....	Detroit, Minn.
White Earth	C. A. Ruffee.....	White Earth agency, Becker County, Minn	Detroit, Minn.
MONTANA.			
Blackfeet.....	John Young	Blackfeet agency, Mont., via Fort Shaw	Blackfeet agency, Mont., via Fort Shaw.
Crow	A. R. Keller.....	Crow agency, Mont., via Bozeman	Crow agency, Mont., via Bozeman.
Flathead	Peter Ronan.....	Flathead agency, via Missoula, Mont	Deer Lodge City, Mont., thence by mail to Missoula.
Fort Peck	E. H. Webb	Fort Buford, Dak.....	Bismarck, Dak.
Gros Ventre.....	W. L. Lincoln	Fort Belknap, Mont	
NEBRASKA.			
Great Nemaha.....	M. B. Kent.....	Nohart, Richardson County, Nebr.....	White Cloud, Kans.
Omaha	Jacob Vore	Omaha agency, Blackbird County, Nebr.....	Sioux City, Iowa.
Otoe	J. W. Griest.....	Otoe agency, Gage County, Nebr	Marysville, Kans.
Santee.....	Isaiah Lightner.....	Santee agency, Knox County, Nebr	Springfield, Dak.
Winnebago	Howard White	Winnebago agency, Dakota County, Nebr	Sioux City, Iowa.

NEVADA.	Nevada.....	A. J. Barnes	Wadsworth, Nev	Wadsworth, Nev.
	Western Shoshone	John How	Elko, Elko County, Nev	Elko, Nev.
NEW MEXICO.	Mescalero	S. A. Russell	South Fork, Lincoln County, N. Mex	La Mesilla, N. Mex.
	Navajo	J. E. Pyle	Navajo agency, Mineral Springs, Valencia County, N. Mex.	Santa Fé, N. Mex.
	Pueblo and Cimarron	B. M. Thomas	Santa Fé, N. Mex	Santa Fé, N. Mex.
NEW YORK.	New York.....	D. Sherman	Forestville, Chatauqua County, N. Y	Forestville, N. Y.
OREGON.	Grand Ronde	P. B. Sinnott	Grand Ronde, Polk County, Oreg	Saint Joseph or Salem, Oreg.
	Klamath	L. M. Nickerson	Klamath agency, Linkville, Lake County, Oreg.	Ashland, Oreg.
	Malheur	William Bagley	Canyon City, Grant County, Oreg.	Baker City, Oreg.
	Siletz	N. A. Cornoyer	Toledo, Benton County, Oreg.	Corvallis, Oreg.
	Umatilla	John Smith	Pendleton, Umatilla County, Oreg.	Weston, Oreg.
	Warm Springs		Warm Springs, Wasco County, Oreg.	The Dalles, Oreg.
UTAH.	Uintah Valley	J. J. Critchlow	Uintah Valley agency, Utah, via Green River City	Salt Lake City, Utah.
WASHINGTON TERRITORY.	Colville	John A. Simms	Fort Colville, Wash	Walla Walla, Wash.
	Neah Bay	Charles Willoughby	Neah Bay, Wash	Port Townsend, Wash.
	Nisqually	R. H. Milroy	Olympia, Wash	Olympia, Wash.
	Quinalt	Oliver Wood	Chehalis Point, Chehalis County, Wash	Olympia, Wash.
	S'Kokomish	Edwin Eells	S'Kokomish agency, Mason County, Wash	Olympia, Wash.
	Tulalip	John O'Keane	Tulalip, Wash	Tulalip, Wash.
	Yakama	James H. Wilbur	Fort Simcoe, Yakama County, Wash	Dalles City, Oreg.
WISCONSIN.	Green Bay	James C. Bridgman	Keshena, Shawano County, Wis	Green Bay, Wis.
	La Pointe	I. L. Mahan	Bayfield, Wis	Ashland, Wis., by mail or messenger to Bayfield.
WYOMING.	Shoshone and Bannock	James I. Patten	Camp Brown, Sweetwater County, Wyo	Camp Stambaugh, Wyo.

INSPECTORS: John McNeil, St. Louis, Mo.; J. H. Hammond, 59 Rush street, Chicago, Ill.; E. C. Watkins, Grand Rapids, Mich.

ANNUAL REPORT
OF
THE COMMISSIONER OF PENSIONS.

DEPARTMENT OF THE INTERIOR,
PENSION OFFICE,
Washington, D. C., October 15, 1878.

SIR: I have the honor to report the transactions of this bureau for the fiscal year ending June 30, 1878.

Including 291 bounty-land claims, there were of all classes 67,509 new claims filed, and 5,095 claims, which had previously been rejected, were reopened.

Eighteen thousand two hundred and forty of the new claims were on account of service in the war of 1812, under the act of March 9, 1878; and 1807 of the reopened claims had been made and rejected under the act of February 14, 1871, and were reopened under the act of March 9, 1878.

Excluding the 1812 claims and the claims for bounty land, there were filed 48,531 claims for pension, original, increase, and restoration, on account of death or disability incurred in the service.

Including 394 claims for bounty land, 43,764 claims were settled. Of the pension-claims, 24,069 were allowed and 19,301 rejected. Of the bounty-land claims, 76 were allowed and 318 rejected.

For an analytical statement of the claims filed and settled during the year, see Table I.

In addition to the 120,387 unsettled claims, there were on the 30th of June in the files of the office about 80,000 claims which had been disallowed, fully one-fourth of which will sooner or later be called up and reopened for further consideration on new and additional testimony, which swells the number of pending claims to 140,387.

EIGHTEEN HUNDRED AND TWELVE CLAIMS.

At the time of the passage of the act of March 9, 1878, granting a pension on account of fourteen days' service, or having been in a battle in the war of 1812, claims under the act of February 14, 1871, were well-nigh exhausted and came forward very slowly, but after the passage of the first-named act the claims under it came in with great rapidity, and, by the 30th of June, reached the extraordinary number of 18,240, of which a fraction more than one in six only were by survivors; the balance were widows' claims.

From June 30 to October 15, the date of this report, 4,827 more of these claims were filed, of which only 343, or one in fourteen, were by survivors.

The number of rejected claims under the act of 1871, which have been reopened during that period, is 860, making a grand total of 25,734 claims under the act of March 9, 1878, already presented.

No increase of force having been provided to meet the increase of the work, I was compelled to withdraw from the other work fifty clerks to record, jacket, make preliminary searches, and as far as possible push forward this new class of claims. This greatly retarded the work upon the other classes, with which the office was already overcrowded, and the resulting delay has not yet been overcome.

SPECIAL INVESTIGATIONS.

Your attention is invited to Table 6, showing the transactions under the provisions of section 4744, Revised Statutes.

The whole number of cases investigated was 1830. Of these, 798 were cases in which pensions had already been allowed; 880 were pending claims ready, or nearly so, for final action, apparently meritorious, and without investigation would probably have been allowed. The other 152 were miscellaneous investigations, mainly touching the conduct of claim-agents, magistrates, and others connected with the prosecution of pension-claims, and touching the violations of the pension laws, hereafter referred to.

It resulted from these investigations that of the 798 cases in which pensions had already been allowed, 477 were dropped from the rolls as not entitled to pension; the others were reaffirmed. Of the 880 claims which but for investigation would probably have been admitted, 480 were rejected, and the testimony in behalf of the balance was generally strengthened.

In addition to the above, 68 pensions were reduced in rate, after preliminary inquiry and special medical examination.

Besides, 77 claim-agents were suspended from practice in the bureau for irregular and illegal practices, and 45 were finally dropped from the roster of attorneys in the Department of the Interior. One hundred and three cases of criminal violations of the pension laws were discovered and reported for prosecution; 35 persons were indicted and 29 convicted.

The convictions were for the following offenses: Two for presenting false and fraudulent claims; 9 for demanding and receiving illegal fees for prosecuting claims; 9 for filing false and fraudulent affidavits; 2 for withholding pension-money; 3 for presenting false pension-vouchers; 2 for fraudulently personating pensioners; and 2 for forgery. Seventeen of the indictments and 13 of the convictions were of claim-agents, and 59 of the 103 violations of the law reported for prosecution were also by claim-agents.

The total amount saved to the government by the investigations in pensions already accrued to those dropped from the rolls and to those whose claims were rejected with one year's pension added in each case, the amount for one year of the reduction in the rates of those whose pensions were reduced and the amount of money refunded which had been improperly collected by pensioners was \$402,096.95.

The total cost of the investigations to the fund appropriated for the expenses of that service was \$38,235.80.

Considering the extraordinary opportunities for the successful prosecution of fraudulent or unmeritorious claims which exist under the present system of adjudication, in connection with the fact that the Commissioner of Pensions has no authority to go out and hunt for fraud, but is limited by the statute to the investigation of such cases only as suspicion attaches to in the usual routine of the office, the investigations of the last year, as well as those of the preceding year, furnish a very suggestive lesson. I am convinced that a great number of persons have been

pensioned who had no just title, and that the number of that class is being constantly increased in the settlements which are now going on, and this must continue to be the case until some measure shall be adopted by which the truth of the parol testimony which is offered can be tested. No such test is possible under the present system.

EFFICIENCY OF THE OFFICE.

The constantly increasing efficiency of the bureau, both among the clerks in the office and of the special agents during the two last fiscal years, as shown by the increased work over that of the preceding year, is very marked, and a subject of congratulation.

In my last annual report, I took occasion to mention the reorganization of the office and the greater conveniences which had followed its removal to its present location in part explanation of the increased efficiency during the fiscal year ending June 30, 1877; but there have been other forces operating in the same direction, which ought to be particularly noted, because they throw some light upon the much-vexed question of reforming the departmental civil service.

During that period, and especially during the last fiscal year, comparatively few changes have occurred in the *personnel* of the office by reason of dismissals, and these only for reasons which were recognized by the clerks in the office as substantially just. This course has operated to dispel the feeling of uncertainty and insecurity in relation to the tenure of their offices, which had before prevailed and distracted the minds of the clerks from their duties. They are now impressed with a sense of comparative security in their positions, dependent upon their honesty, industry, and efficiency; and this has greatly tended to inspire them to closer application to duty, in order that they might be deemed worthy of continued employment.

And, again, the promotions for meritorious service which have been made were of persons whose merit was recognized in the office as entitling them to reward, and have tended to encourage not only those who received the promotions, but their fellows also, to greater effort.

Throughout the three last fiscal years the character of the business of the office has been uniform, except that as we have receded from the war period the facts upon which the claims rest have become more and more obscure, and the cases more and more difficult of settlement from year to year.

The following table shows the character of the work performed and the number of cases settled each year from 1873 to 1878, inclusive, the money expended in salaries, and the average cost of each case to the salary-fund:

1873.										1874.									
	Original.		Increase.		Restora- tion.	Total number allowed.	Total number rejected.	Total number of claims dis- posed of.	Original.		Increase.		Restora- tion.	Total number allowed.	Total number rejected.	Total number of claims dis- posed of.			
	Pensions allowed.	Claims re- jected.	Pensions increased.	Claims re- jected.					Pensions increased.	Claims re- jected.									
Army.....	6,422	2,921	20,946	2,918	251	27,619	5,839	33,458	5,514	2,584	8,063	5,404	244	13,821	7,988	21,809			
Widows, &c.....	3,949	1,299	5,545	.....	73	4,567	1,299	5,866	2,966	485	12,932	.....	85	15,983	485	16,468			
Navy.....	129	78	239	124	1	369	202	571	179	45	126	68	17	322	113	435			
Widows, &c.....	124	177	31	.....	6	161	177	338	101	30	286	.....	6	393	30	423			
War of 1812	3,186	3,933	.....	.....	16	3,202	3,933	7,135	563	838	.....	.....	.....	563	838	1,401			
Widows of, &c.....	2,242	2,082	.....	.....	6	2,248	2,082	4,330	814	723	.....	.....	.....	814	723	1,537			
Bounty land.....	.....	.....	.....	.....	.....	340	437	777	.....	.....	.....	.....	.....	234	250	484			
	16,052	10,440	21,761	3,042	353	38,506	13,969	52,475	10,137	4,705	21,407	5,472	352	32,130	10,427	42,557			
1875.										1876.									
Army.....	5,598	2,605	13,483	4,664	278	19,359	7,269	26,628	5,225	2,626	6,582	5,733	246	12,053	8,359	20,412			
Widows, &c.....	4,614	690	1,927	1,452	118	6,659	2,142	8,801	4,292	1,030	422	.....	113	4,827	1,030	5,857			
Navy.....	162	53	127	64	8	297	117	414	135	61	67	64	14	216	125	341			
Widows, &c.....	122	26	24	.....	.....	146	26	172	84	36	26	1	4	114	37	151			
War of 1812	240	604	.....	.....	1	241	604	845	73	321	.....	.....	.....	73	321	394			
Widows of, &c.....	416	515	.....	.....	.....	416	515	931	168	260	.....	.....	.....	168	260	428			
Bounty land.....	.....	.....	.....	.....	.....	407	333	740	.....	.....	.....	.....	.....	124	351	475			
	11,152	4,493	15,561	6,180	405	27,525	11,006	38,531	9,977	4,334	7,097	5,798	377	15,575	10,483	28,058			
1877.										1878.									
Army.....	7,134	4,609	8,073	7,026	849	16,056	11,635	27,691	7,308	6,990	10,665	9,167	693	18,666	16,157	34,823			
Widows, &c.....	3,790	1,355	5,388	13	140	4,468	1,368	5,836	3,456	2,228	465	31	171	4,092	2,259	6,351			
Navy.....	148	51	63	38	13	224	89	313	106	55	83	77	13	202	132	334			
Widows, &c.....	71	66	17	.....	3	91	66	157	94	37	13	.....	.....	107	37	144			
War of 1812	57	43	.....	.....	2	59	43	102	817	375	.....	.....	3	820	375	1,195			
Widows of, &c.....	126	83	.....	.....	.....	126	83	209	181	341	.....	.....	1	182	341	523			
Bounty land.....	.....	.....	.....	.....	.....	85	451	536	.....	.....	.....	.....	.....	76	318	394			
	11,326	6,207	8,691	7,077	1,007	21,109	13,735	34,844	11,962	10,026	11,226	9,275	881	24,145	19,619	43,764			

	1873.	1874.	1875.	1876.	1877.	1878.
Salary appropriation	\$456, 009	\$445, 580	\$453, 150	\$480, 230	\$446, 680	\$444, 430
Total number of claims disposed of	52, 475	42, 557	38, 531	28, 058	34, 844	43, 764
Average cost, to salary fund, for settling a case	\$8. 69+	\$10. 47+	\$11. 76+	\$17. 11+	\$12. 81+	\$10. 15+

Notwithstanding the salary-fund for the year 1876 exceeded that for the year 1877 by \$33,550, and that for the year 1878 by \$35,800, the work of 1877 exceeded that of 1876 by 22 $\frac{1}{4}$ per cent., and the work of 1878 exceeded that of 1876 by 56 per cent.

The average cost of settling the claims in the three several years named fell from \$17.11 in 1876 to \$12.81 in 1877, and to \$10.15 in 1878.

The work of 1877, performed at the average cost of 1876, would have required an expenditure in salaries of \$596,180—\$149,500 more than was actually expended; while the work of 1878, at the same average cost, would have required the expenditure in salaries of \$748,802, being \$304,372 in excess of the actual expenditure; which sum added to \$35,800, the excess of the salary appropriation for 1876 over that for 1878, and we have a clear saving to the government, on account of the increased efficiency of the clerical force, for the year 1878 over the year 1876, of \$340,172.

The saving in the same direction in 1877 over 1876 was \$183,050.

The cost of settling the cases in 1873, '74, '75 appears to have averaged less than for the years 1877 and 1878, it being for the respective years, \$8.69, \$10.47, and \$11.76; but an analysis of the work of those years shows that, in addition to the fact that the cases were by so much nearer the war period, which circumstance of itself greatly simplified the settlement of all classes of claims, there were settled in each of those years many thousands of claims of so simple a character that any comparison between the work of those years and the three following years will be unreliable. Of the 133,563 cases settled in 1873, '74, '75, 25,685 were invalid-increase claims under the acts of June 8, 1872, March 3, 1873, and June 18, 1874; 19,088 were widows' increase under the ninth section of the act of March 3, 1873, and 18,180 were 1812 pension-claims and bounty-land claims.

PENSION AGENCIES.

On the 7th of May, 1877, an order was issued by the President, which was afterwards modified, as to the location of 2 of the agencies, by which the number of agencies for paying pensions was reduced from 58 to 18, by consolidating 7 agencies in Maine, New Hampshire, and Vermont into 1 agency at Concord, N. H.; 4 in Massachusetts, Connecticut, and Rhode Island into 1 agency at Boston, Mass.; 4 in New York into 2 agencies, 1 at the city of New York and 1 at Canandaigua; 3 in Pennsylvania into 2 agencies, 1 at Philadelphia and 1 at Pittsburgh; 4 in New Jersey, Delaware, Maryland, and District of Columbia, into 1 agency at Washington, D. C.; 5 in Virginia, West Virginia, Tennessee, and North Carolina, into 1 agency at Knoxville, Tenn.; 2 in Kentucky into 1 agency at Louisville; 3 in Arkansas, Mississippi, and Louisiana, into 1 agency at New Orleans; 3 in Ohio into 1 at Columbus; 3 in Indiana into 1 agency at Indianapolis; 2 in Michigan into 1 at Detroit; 4 in Illinois into 1 agency at Chicago; 4 in Wisconsin and Minnesota into 1 agency at Milwaukee, Wis.; 4 in Iowa and Nebraska into 1 agency at Des Moines; 4 in Missouri, Kansas, and New Mexico, into 1 agency at Saint Louis; and 2

agencies in California and Oregon into 1 agency at San Francisco, the consolidation to take effect July 1, 1877.

Under instructions issued by me, the consolidation was effected promptly and without confusion. Taking place at the end of the pay-month, the pensioners were more than usually prompt in applying for their pensions, which were due on the 4th of June, and comparatively few payments remained to be made in July and August, and the payments being taken up at the consolidated agencies in most cases as early as July 20, and at all the agencies before the end of the month, but little inconvenience was experienced by the pensioners.

The quarterly payment which was due September 4, of 1877, involved the biennial examination of the invalid pensioners, and the agents were compelled to pay upon the rolls of the agencies which had been consolidated with their own, many of which had been imperfectly kept. This payment was watched with some degree of anxiety as the severest test which the plan of consolidation would ever be subjected to, but, notwithstanding the unfavorable circumstances under which the agents labored, that payment was made quite as promptly as the quarterly payments had been made prior to the consolidation.

I received a daily report from each agency during that month, beginning with the fourth day, showing the number of vouchers received by mail for payment, the number of pensioners paid by mailing their checks, and the number paid in person at the agency, and this report has been rendered to me during the pay month at each subsequent payment.

Of the 226,643 pensioners on the rolls on the 30th of June, 1877 (which number had not materially changed in September), 187,403 were paid in that month; 6,040 more would have been paid had the surgeon's certificates of biennial examination been received. Of these, 158,361 were paid by mail and 29,042 in person at the agencies. Those paid, augmented by the 6,040 which awaited the surgeons' certificates, aggregate 85 per cent. of all the pensioners upon the rolls. Each of the three subsequent payments within the year was more promptly and satisfactorily made than the September payment; so satisfactorily, indeed, to the pensioners that comparatively few complaints were heard in any quarter, except at the time of the temporary suspension of the payments in the New Orleans and New York agencies upon a change of agents.

The following table is a compilation of the payments during the pay-month of each quarter since the consolidation; showing the number paid in each quarter during the first six days, during the first nine days, and during the month. The daily reports were continued through the whole March quarter, and the payments for each month are shown for that quarter; the total number of pensioners paid during the quarter being 212,871.

For the quarter commencing—	Payments made during the first six days of the quarter.			Payments made during the first nine days of the quarter.			Payments made during the first month of the quarter.		
	By mail.	Personal.	Total payments.	By mail.	Personal.	Total payments.	By mail.	Personal.	Total payments.
September 4, 1877.....	50,691	19,156	69,847	88,207	22,768	110,975	158,361	29,042	187,403
December 4, 1877.....	70,894	20,424	91,318	114,650	23,507	138,157	169,305	28,061	197,366
March 4, 1878.....	85,514	20,784	106,298	127,405	23,574	150,979	173,103	28,644	201,747
June 4, 1878.....	91,131	20,821	111,952	131,098	23,450	154,548	171,341	26,970	198,311
September 4, 1878.....	81,563	19,955	102,518	120,674	22,648	143,322	171,446	27,523	198,969
	By mail.			In person.			Total.		
	By mail.	In person.	Total.	By mail.	In person.	Total.	By mail.	In person.	Total.
Payment made in March, 1878.....	173,103	28,644	201,747	173,103	28,644	201,747	173,103	28,644	201,747
Payments made in April, 1878.....	7,079	1,246	8,325	7,079	1,246	8,325	7,079	1,246	8,325
Payments made in May, 1878.....	2,310	489	2,799	2,310	489	2,799	2,310	489	2,799
Total payments for the quarter.....	182,492	30,379	212,871	182,492	30,379	212,871	182,492	30,379	212,871

I think it may well be doubted whether there is any branch of the public service which is more efficiently administered than in the agencies for paying pensions.

The consolidation brought together at each of the consolidated agencies a large number of roll-books, which rendered the rolls very unwieldy. The rolls have since been consolidated and rewritten in new books.

The consolidation saved to the government in salaries of agents \$142,000 during the year, and this reduction in expense is a permanent reduction. This sum added to the \$340,172 saved by the increased efficiency of the clerical force makes a total saving in the operations of the Pension Bureau for the year ending June 30, 1878, upon the two items named, of \$482,172.

By the act of Congress making appropriations for pensions for the current year, the compensation of the agents was fixed as follows:

1. A salary at the rate of \$4,000 per annum.
2. Fifteen dollars for each 100 vouchers, or at that rate for a fraction of 100, prepared and paid by the agent, in excess of 4,000 vouchers per annum.
3. Actual and necessary expenses for rent, fuel, and light, and for postage on official matter directed to the departments and bureaus at Washington.

The agents complain that their compensation, after paying the expenses of their agencies, is so greatly reduced by this act as to materially cripple the efficiency of their offices. I have inquired into the matter as fully as possible under the circumstances, and am of the opinion that they should have some further allowances made to them for the expenses of their agencies, but I have not full data upon which to base a recommendation, and will make the point the subject of a special communication at a later day.

It will be observed by the foregoing table of payments that the agents have not permitted the inadequacy of their compensation to interfere in any material degree with the promptness of the September payments of the current year, which fact should be set down to their greater credit.

ANNUAL REPORTS OF AGENTS FOR PAYING PENSIONS.

The Commissioner of Pensions has heretofore made up for his annual report a statement of the condition of the pension-rolls, from lists of pensions granted kept in his office, as they have from time to time been corrected by transferring to them information of deaths, remarriages, &c., furnished to him piecemeal by the several agents; and of the disbursements made on account of pensions by the agents, from their monthly accounts-current.

This method has never furnished exact information as to the number of pensioners of the several classes upon the rolls, nor a sufficiently particular account of the moneys disbursed.

In order to procure correct information upon these and other subjects, peculiarly within the knowledge of the agents, I required them to furnish a report of their respective agencies, covering the last fiscal year. Upon these reports is based much of the statistical matter herein.

The whole number of pensioners on the rolls on the 30th of June last was 223,998. The whole number on the rolls at the beginning of the year, as shown by my report for 1877, was 232,104, but as now shown by the reports of the agents, the result of an actual count, the whole number on the rolls at that time was 226,643, showing a reduction in the

number of pensioners, from all causes, of 2,645. The discrepancy between the report of last year and this, in the number of pensioners upon the roll at the commencement of the year, is an aggregation of many years. No instance is remembered of a general comparison of the records in the agencies with the lists kept in this office, or of a count made by the agents of the pensioners on the agency rolls, and the result embodied in the Commissioner's annual report.

In view of the large number of agencies existing previous to July 1, 1877, and the great number of changes which occur to the roll each year from deaths, remarriages, and failure to draw pension, the difference in the figures is much less than might have been expected.

The reduction in the number of pensioners is to be charged to the large number of minors' pensions which have expired during the year, and not to deaths and remarriages, as will be observed upon comparing Tables II and III which show the additions and losses to the roll.

Owing to the large number of 1812 claims which will probably be settled during the current year, it is believed that the number of pensioners will be considerably increased by the end of the present year.

The entire amount appropriated for the payment of pensions during the year, exclusive of surgeons' fees and the salaries and fees of the agents, was \$27,850,000, of which \$26,530,792.10 was paid out for pensions; the balance of \$1,319,207.90 will be returned to the Treasury.

There was paid out during the year, on account of first payments to new pensioners, and such as once having been upon the rolls and dropped were restored, the sum of \$2,992,352.17.

During the year \$240,901.36 was retained from the pensioners and paid directly to the claim-agents who had assisted in the prosecution of the claims.

SUNDRY RECOMMENDATIONS.

1. In my last report I recommended that section 4702 Revised Statutes should be amended by adding a proviso that the pension to children should commence at the date of the last payment to the mother who had remarried, for the reason that a considerable number of widows who remarry conceal the fact from the government and continue to draw their pensions, and after the discovery of the remarriage and the widow's name dropped from the roll the children come in and claim the pension again from the date of the remarriage of the widow, notwithstanding the fact that they have lived with and been supported by her, thus compelling the government to pay the pension twice over the same period.

2. I also recommended that section 4717 Revised Statutes should be repealed for the reason that, under the rule of action adopted by the War Department, it worked a great hardship to many claimants, in whose cases the records are alleged to be incomplete or not in accordance with the facts. I respectfully renew both these recommendations.

3. The application of section 4698½ Revised Statutes is attended by considerable confusion and often by palpable injustice. It prescribes that no increase of an invalid pension, except in cases of "specific disabilities," shall commence prior to the date of the medical examination upon which the claim is adjusted.

There are many cases, such as the loss or permanent destruction of some material part of the body or limbs, in which the disability has been permanent in a degree in excess of that represented by the pension, from the time the injury was received; and others where the pension has been reduced through the mistaken opinion of an examining-surgeon

or a misapprehension of the case by the Commissioner of Pensions at the time of the allowance of the original pension. The statute operates unjustly in all these cases, and I respectfully recommend that it be so amended as to extend to them the exception made in "specific-disability" cases.

CHANGE IN SYSTEM OF SETTLING CLAIMS.

In my annual report for each of the two last years, I took occasion to recommend that the system of settling pension claims be so changed as to bring claimants and their witnesses face to face with officers of the government, by dividing the country into districts, and assigning one learned surgeon and one competent clerk to each district, who should go from place to place in the district and collect the testimony offered in support of the claims. Another year's observation and experience has only tended to confirm my opinion that such a change is necessary, and that it is both feasible and economical.

I respectfully renew my recommendation upon this subject, and invite attention to the considerations set forth at length in my former reports in support of the recommendation.

BIENNIAL EXAMINATIONS.

The law now provides for a very sweeping examination of the invalid pensioners every odd-numbered year. So general and frequent an examination of these pensioners is, in my judgment, no longer necessary. The necessity for these examinations rested upon the presumption that the degree of disability for which the invalid pensions were allowed would, from year to year, become less.

The average age of the soldiers of the war of the rebellion, from whose ranks the invalid pensioners mainly come, at the time of their enlistment, was 25.8 years, and taking 1863 as the mean year their average age is 41 years; few of them all are less than 36 years, while a very great number are 40 years and upward.

The disabilities for which pensions are now paid, or will hereafter be allowed, are of 13 to 17 years' standing, and it needs no argument to prove that there will be very few cases in which the disability of so long standing, in men of such advanced years as have now been reached by the survivors of the late war, will become of less degree than it now is. It seems, therefore, only necessary to secure a thorough examination of the invalid pensioners upon the present pension-list, and a fair rating of their present disabilities, and a just rating of such cases as shall hereafter be allowed, in order to dispense with nearly all periodical examinations of the pensioners, and I respectfully recommend that the biennial examinations of the invalid pensioners be dispensed with. The repeal of sections 4771, 4772, and 4773 Revised Statutes, and the enactment in their place of a provision authorizing the Commissioner of Pensions to cause any pensioner to be examined by a surgeon whenever he shall deem such examination necessary, and to reduce or increase the rate of pension as justice may require, will be the only legislation necessary to effect this object.

INCREASE OF SALARIES.

Your attention is invited to the duties and salaries of the chief clerk, the chiefs of the five principal divisions of the office, and of the law clerk.

The duties of the chief clerk of this bureau not only extend to the general supervision of the entire force of the office, but to the examination

and decision of many intricate questions of law and fact which are involved in the cases, during the temporary absence of the Commissioner, or in case of a temporary vacancy in that office he is Acting Commissioner, and performs the duties of that officer; and since February, 1877, there has been no Deputy Commissioner, and the chief clerk has divided with the Commissioner the duties theretofore performed by that officer. It will be seen that the office of chief clerk of the bureau is not only a very important one, but that the duties are exceedingly arduous and delicate. The salary is \$2,000 per annum, while the salary of the chief clerks of several other bureaus in the government ranges much higher. It is no detracting from the importance of the duties of the chief clerks of the Supervising Architect of the Treasury, United States Treasurer, Light-House Board, and Patent Office, to say that the duties of the chief clerk of this bureau are as important and arduous as are theirs. The salaries of these range from \$2,250 to \$2,500.

The law clerk of the bureau is a fourth-class clerk. His duties are both responsible and arduous; they require both learning and experience in the law. A similar position in the General Land Office is paid \$2,000 per annum.

The force of the office engaged in the work of examining and settling the claims, making the records, and supervising the agencies for paying the pensions is divided into five principal divisions, each under the charge of a clerk of class four, denominated a chief of division. Each of these divisions has attached to it a large number of persons, to wit: Invalid Division, 101; Widows Division, 62; Old War, Navy, and Bounty Land Division, 95; Special Service Division, 41; Division of Records and Accounts, 37. The duties of all the chiefs are not only very laborious but very responsible, in each case not inferior to some of the smaller bureaus, and equal to the largest and most important divisions in any of the departments or bureaus, and require the best talent and ability. The chiefs of important divisions elsewhere are paid from \$2,100 to \$2,500 per annum. In a few cases still larger salaries are paid.

Both justice and the interests of the service will, in my opinion, be subserved by increasing the salary of the chief clerk to \$2,250 per annum, and by providing an additional allowance at the rate of \$200 per annum to the law clerk, and \$300 per annum to the chiefs of the five principal divisions; all of which I respectfully recommend.

CLAIM-AGENTS.

By an act passed June 20, 1878, Congress reduced the fee which claim-agents may charge for their services in the prosecution of a pension-claim from \$25 to \$10; prohibited the filing of fee-contracts with the Commissioner of Pensions; repealed the provisions for the collection of their fees through the agent for paying pensions, leaving them to make their own collections from their clients, and withdrew from the Commissioner of Pensions all discretion in relation to the amount of the claim-agent's fee, both in cases which had been filed and in those which should thereafter be filed.

The principal features of this act were suggested and recommended by me in a letter addressed to Hon. A. V. Rice, chairman of the Committee on Invalid Pensions, House of Representatives, January 21, 1878, from which I quote the portion directly bearing upon this subject:

There is another feature of the present system which is very objectionable, to wit, the provision relating to the fees of attorneys. In one class of cases it is unlawful for an attorney to receive any fee whatsoever for his services (see last clause, sec. 4711 Re-

vised Statutes). In other cases, in which there is no contract, \$10 is the legal fee; and in still other cases it is provided that the attorney may file in a case a contract for a fee not exceeding \$25, and the Commissioner of Pensions is required in the last-named cases to determine the amount of fee which shall be paid notwithstanding the contract, while the statute provides further, that the pension-agent shall deduct the amount from the pension and pay it to the attorney. It is not objectionable, but, on the other hand, highly proper for Congress to fix the maximum amount which it shall be lawful to pay for the services of attorneys in a pension case. But it imposes an impossible duty upon the Commissioner of Pensions when it requires him to exercise a discretion and determine the amount which should be paid in the cases, notwithstanding the contract. He has not the information upon which he can rest a just decision of that question.

The provisions in relation to the payment of the fee by the pension agent entail upon the office, as well as upon the agency, a very large amount of wholly unnecessary labor. The effect of all these provisions in relation to attorneys' fees when connected with the present system for the adjustment of pension claims has been to flood the office with an enormous number of claims which are without merit, the consideration of which has greatly delayed the adjustment of honest claims, and entailed great expense upon the government, in addition to the payment of such of the fraudulent claims as are successfully prosecuted.

The present situation of affairs is a standing invitation to claim-agents to seek out persons to prefer claims for pension, themselves made sure of receiving their legal fee in all cases successfully prosecuted, and by the same law the claimants exempted from paying for services unless they have first been allowed a pension. The country is being constantly advertised and drummed from one end to the other by claim-agents in pursuit of persons who have honest claims, or those who are willing, in consideration of the fact that it will cost them nothing unless they win their pension, to file claims which have no merit, leaving it to the ingenuity and cupidity of their agent to "work" the case through.

If all these provisions are repealed, and a maximum fee established by Congress, the result will be that the claim-agent will have no security for his compensation except that furnished by his client. The client, unwilling to pay money unless he sees a reasonable prospect of the allowance of a pension, will not, as a rule, file a claim unless he himself believes, not only that he is entitled to a pension, but also that he can establish his right thereto. It will be seen, therefore, that by making this change in relation to attorneys' fees, the interests of the claimant as well as those of the agent will, as a rule, conspire to prevent the presenting of fraudulent and unmeritorious claims, instead of uniting as now in favor of their presentation.

This change will be no injustice to any person concerned, and, in my opinion, it will operate to relieve the bureau of a vast amount of its most troublesome cases.

The act has met the most determined opposition of a class of claim-agents who, under the law as it previously stood, enjoyed large facilities for gathering up claims. The agents of this class, in support of their opposition, have not hesitated to circulate through the country the statement that the law was inimical to the interests of the soldiers, both pensioners and claimants, and was intended to be so when passed; alleging that the reduction of the fee and the uncertainty of its collection would deter all reliable and responsible attorneys from aiding the soldier in the prosecution of his claim, and thus he would be prevented from securing his just rights.

As correct knowledge of the provisions of the act, together with the information that if they need assistance their neighboring lawyer or magistrate will be quite as efficient an aid to them in the preparation of their claims and the proofs to establish them as a professional claim-agent, becomes circulated among the persons interested, this misrepresentation of the purposes and effect of the act is being rapidly counteracted, and although the brief period since the enactment of the law has furnished but limited opportunity for observing its general effects upon the service, yet in some directions an improvement may be noticed; and there has been nothing in its history to change my opinion of its advantage to honest claimants as well as to the government.

The provisions which were modified by this act were contained in an act passed July 8, 1870, to protect pensioners and claimants from the oppressions and frauds which had theretofore been extensively practiced

upon them by unscrupulous claim-agents, who succeeded in many cases in securing employment to prosecute pension claims and to collect pension money at the agencies for paying pensions.

While the provisions of that act served in some degree to restrain claim-agents from demanding illegal and oppressive fees for their services, they presented an opportunity for other operations which have inflicted upon honest pension claimants far greater injury than that from which the act of July 8, 1870, intended to relieve them.

A comparatively small number of professional claim-agents and claim-firms at Washington and some other points in the country, through the intervention of subagents, and by extensive advertising, employing for that purpose in some instances sheets issued in the form of periodical newspapers purporting to be published in the interest of the soldiers, the columns of which contained matter in which apparent anxiety for the soldiers' welfare and appeals to their love of gain were cunningly intermingled, always representing the advertisers as in the enjoyment of special and peculiar facilities for the successful prosecution of claims, and usually adding the suggestion that no charge would be made unless a pension should be obtained.

These methods have withdrawn a large proportion of the pension-claim business from the local resident magistrates and attorneys and concentrated it in the hands of the agents and firms above referred to, whose offices have become great claim bureaus.

Under this system these claim-agents and their clients are strangers to each other; the agent having no personal knowledge in relation to the merit of the claim nor of the truthfulness of the testimony which he files in its support, is therefore relieved of personal responsibility to the office as to the good faith of the claimant, and has no care except to secure a favorable consideration of the claim presented by him; and unmeritorious and fraudulent claims and false testimony have been flooded upon the office to such an extent that almost all claims are alike suspected, and, for the protection of the government, the office has been forced to the adoption of very stringent rules to govern the consideration of the cases, and the honest claimant is not unfrequently a sufferer thereby, and he is always a sufferer on account of the delay entailed upon the consideration of his claim by reason of the time consumed in the consideration of the claims which are without merit.

The claim without merit consumes more time in its consideration than does the just one, and for obvious reasons:

First. Even under the most stringent rules the testimony in behalf of a just claim is usually more easily and readily produced than is the testimony in support of the claim which has no merit.

Second. A just claim once established ceases to occupy the time of the office, except upon applications for increase, while the claim without merit not only consumes more time before it is rejected than the meritorious claim before it is allowed, but after rejection very many of that class of claims are called up from time to time for further consideration through members of Congress and others supposed to have influence to secure favorable action.

In this connection, your attention is invited to Table X, showing the great increase in the number of original claims for invalid pension during the last four years, and to the fact that in each of the last three years more claims of that class have been filed than in any year since 1866, and in the last fiscal year nearly two thousand more than in either of the two previous years.

A considerable number of the claims of merit of this class which have

been filed since 1873 have doubtless come forward through the pressure of the "hard times" upon individual fortunes, but, in my opinion, the number of these has not been more than sufficient to have kept the number of claims in the later years equal to the number filed during the years 1871 to 1874, and are not, therefore, a material element for consideration when looking for the cause of the great increase of claims during the last few years.

Very respectfully,

J. A. BENTLEY,
Commissioner of Pensions.

Hon. CARL SCHURZ,
Secretary of the Interior

TABLE I.—Number of pension claims received, disposed of, and remaining on hand.

	Army.						Navy.						War of 1812.						Aggregate of all classes.	
	Invalids.			Widows, &c.			Invalids.			Widows, &c.			Act of February 14, 1871.			Act of March 9, 1878.				Total.
	Original.	Increase.	Total.	Original.	Increase.	Total.	Original.	Increase.	Total.	Original.	Increase.	Total.	Survivors.	Widows of.	Restoration.	Survivors.	Widows of, &c.			
For the year ending June 30, 1878.																				
Claims pending June 30, 1877.....																				
New claims filed during the year..																				
Rejected claims reopened.....																				
Total number of claims for disposal.....																				
Claims admitted.....																				
Claims rejected.....																				
Total number disposed of....																				
Number pending June 30, 1878....																				
Increase in number of pending claims.....																				
Decrease in number of pending claims.....																				

Under the head of increase are included restorations of the Army and Navy.

The class "widows, &c.," of the Army and Navy refer to widows, minors, and dependent relatives.

There were received during the year 291 applications for bounty-land warrants 76 warrants were issued for 13,800 acres of land; 318 applications were rejected.

The total amount due the new pensioners, and those newly increased, calculated to the pay-day preceding the issue of the certificates, is \$3,215,448.20.

TABLE II.—Number of pensions allowed and increased during the year, with their annual value, together with the yearly value of all pensions on the roll, and the amount paid for pensions during the year.

	Pensions allowed and increased during the year.				Pertaining to the whole pension-roll.					
	Original.		Increase.		Restoration.		Dropped from the roll.		Reduction in rate.	
	Num-ber.	Yearly value.	Num-ber.	Yearly value.	Num-ber.	Yearly value.	Num-ber.	Yearly value.	Number.	Yearly value.
Army { invalids	7,308	\$486,542 72	10,665	\$490,083 60	693	\$37,934 76	2,003	\$239,657 04	2,360	\$93,702 48
Army { widows, &c	3,456	451,215 36	465	17,604 72	171	20,704 68	11,204	1,284,703 92	7,113	172,897 20
Navy { invalids	106	10,328 64	83	4,218 12	13	1,162 20	68	7,479 84	22	987 00
Navy { widows, &c	94	17,478 36	13	312 00			80	8,856 00	40	960 00
War of 1812 { survivors	817	78,432 00			3	288 00	1,610	154,560 00		
War of 1812 { widows, &c	181	17,296 00			1	96 00	523	50,208 00		
Total	11,962	1,041,293 08	11,226	512,218 44	881	60,185 64	15,488	1,745,464 80	9,535	268,546 68
Total amount paid during the year to new pensioners, upon first payment, is to—										
Army invalids										\$1,134,642 47
Army widows, &c										1,779,229 71
Navy invalids										12,178 88
Navy widows, &c										29,899 33
Survivors war of 1812										16,450 05
Widows of, &c., war of 1812										19,951 73
Total										2,992,352 17

Whole number of pensioners on the roll June 30, 1878.

Yearly value of pensions as shown by the roll June 30, 1878.

Total amount paid for pensions during the year ending June 30, 1878.

TABLE III.—Statement of the number of pensioners of the various classes dropped from the rolls during the year, with the cause, and the number of each class remaining on hand June 30, 1878.

	Invalids.	Widows, minors, and dependent relatives.	Classification of the widows, minors, and dependent relatives.							Act of Feb. 14, 1871.		Act of Mar. 9, 1878.		Total number survivors and widows of, &c.	Total number of pensioners of all classes.
			Widows with children.	Widows without children.	Persons representing children.	Dependent fathers.	Dependent mothers.	Brothers and sisters.	Total number of children.	Survivors.	Widows of, &c.	Survivors.	Widows of, &c.		
During the year ending June 30, 1878.															
Loss to the roll:															
By death	1, 109	695	126	203	30	58	278		242	753	226			979	2, 783
By remarriage		526	321	190			15		544						526
Minors expired by legal limitation		8, 755			8, 754			6	16, 407						8, 755
Dropped, failure to claim for three years	440	1, 053	179	399	137	36	302		375	851	291			1, 142	2, 635
Dropped for other causes	522	255	65	57	12	38	83		104	6	6			12	789
Total loss to the roll	2, 071	11, 284	691	849	8, 933	132	678	6	17, 672	1, 610	523			2, 133	15, 488
Number of pensioners on the roll June 30, 1878	121, 242	88, 624	15, 068	31, 697	16, 921	2, 341	22, 584	24	35, 434	9, 601	3, 584	806	141	14, 132	223, 998

Of the 35,434 minor children on the roll June 30, 1878, there will expire in 1878, 10,321; in 1879, 8,975; in 1880, 5,997; after 1880, 10,141.

TABLE IV.—Appropriations for the payment of Army and Navy pensions for the year ending June 30, 1878.

	Army.		Navy.	
	Appropriation for the payment of pensions for the year ending June 30, 1878.	Disbursements on account of pensions during the year ending June 30, 1878.	Appropriation for the payment of pensions for the year ending June 30, 1878.	Disbursements on account of pensions during the year ending June 30, 1878.
For pensions.....	\$27,325,000 00	\$26,027,821 19	\$525,000 00	\$502,970 91
For fees to examining surgeons.....	235,000 00	231,887 26	2,600 00	3,147 00
For fees to pension agents for preparing vouchers and administering oaths.....	225,000 00	208,222 00	3,400 00	3,233 50
For compensation to pension agents and expenses of agencies.....	215,000 00	102,007 26	2,000 00	1,600 32
Total.....	28,000,000 00	26,569,937 71	533,000 00	509,511 73
Amount not drawn from appropriation.....	.....	1,133,233 40	.....	12,088 25
Balance in hands of pension agents June 30, 1878.....	.....	296,828 89	.....	11,400 02
	28,000,000 00	28,000,000 00	533,000 00	533,000 00

Two hundred and forty thousand nine hundred and one dollars and thirty-six cents (\$240,901.36), paid for pensions during the year, was paid to claim agents for their fees. There was paid during the year (included in the amount paid for pensions,) under the provisions of section 4718 Revised Statutes, for the expenses of the last sickness and burial of deceased pensioners, as follows:

	No.	Amount.
Army invalids.....	129	\$6,827 04
Widows, &c.....	431	11,063 81
Navy invalids.....	8	623 99
Widows, &c.....	12	639 30
War 1812 survivors.....	161	3,228 62
Widows of, &c.....	137	2,063 29
Total.....	809	25,046 05

TABLE V.—List of pension agencies with location, geographical limits, name of pension agents with the amount of funds remaining in the hands of each agent for paying Army and Navy pensions, for the year ending June 30, 1878.

Location of agency.		Name of agent.	Amount.		Geographical limits.
City.	State.		Army.	Navy.	
Boston.....	Massachusetts.....	D. W. Gooch.....	\$19,924 75	\$2,330 34	The States of Massachusetts, Connecticut, and Rhode Island.
Canandaigua.....	New York.....	L. M. Drury.....	33,742 83	.....	The counties in the State of New York not in New York City district.
Chicago.....	Illinois.....	Ada C. Sweet.....	15,851 21	200 75	The State of Illinois.
Columbus.....	Ohio.....	A. T. Wikoff.....	19,629 01	300 07	The State of Ohio.
Concord.....	New Hampshire.....	E. L. Whitford.....	24,543 18	310 26	The States of Maine, New Hampshire, and Vermont.
Des Moines.....	Iowa.....	B. F. Gue.....	7,326 34	.....	The States of Iowa and Nebraska.
Detroit.....	Michigan.....	Samuel Post.....	22,523 22	23 37	The State of Michigan.
Indianapolis.....	Indiana.....	Fred Kneffer.....	25,856 97	.....	The State of Indiana.
Knoxville.....	Tennessee.....	D. T. Boynton.....	22,374 22	105 83	The States of Virginia, West Virginia, North Carolina, and Tennessee.
Louisville.....	Kentucky.....	R. M. Kelly.....	20,681 39	107 85	The State of Kentucky.
Milwaukee.....	Wisconsin.....	Edward Ferguson.....	3,327 32	17 00	The States of Wisconsin and Minnesota, and the Territories of Dakota, Montana, and Wyoming.
New York City.....	New York.....	Charles R. Coster.....	16,300 57	2,694 40	The counties of Albany, Clinton, Columbia, Delaware, Dutchess, Essex, Greene, Kings, Queens, New York, Orange, Putnam, Richmond, Rensselaer, Rockland, Saratoga, Schenectady, Sullivan, Suffolk, Ulster, Warren, Washington, and Westchester.
New Orleans.....	Louisiana.....	W. L. McMillen.....	11,486 95	222 87	The States of Arkansas, Mississippi, Louisiana, Alabama, Georgia, Florida, South Carolina, and the Indian Territory.
Philadelphia.....	Pennsylvania.....	H. G. Sickel.....	5,720 43	52	The counties of Berks, Bradford, Bucks, Carbon, Chester, Columbia, Dauphin, Delaware, Lancaster, Lebanon, Lehigh, Luzerne, Monroe, Montgomery, Montour, Northampton, Northumberland, Philadelphia, Pike, Schuylkill, Sullivan, Susquehanna, Wayne, Wyoming, and York.
Pittsburgh.....	.....	James McGregor.....	17,126 79	.....	The counties in the State of Pennsylvania not in the Philadelphia district.
Saint Louis.....	Missouri.....	R. Campion.....	9,802 21	1,555 03	The States of Missouri, Kansas, and Colorado, and the Territory of New Mexico.
San Francisco.....	California.....	A. Hart.....	8,032 34	5 04	The States of California, Nevada, and Oregon, and the Territories of Idaho, Washington, Arizona, and Utah.
Washington.....	Dist. of Columbia.....	David C. Cox.....	12,579 16	3,526 69	The States of New Jersey, Delaware, Maryland, the District of Columbia, and all national homes and foreign pensioners.
			296,828 89	11,400 02	

TABLE VI.—Statement showing the operations of the special service-division for the year ending June 30, 1878.

Whole number of investigations made.	Names of pensioners dropped from the roll.				Amount illegally drawn and refunded.		Pensions reduced in rate.		Pending claims prima facie established, disallowed after investigation.				Aggregate saving from all sources.		Cost of the work.			Net amount saved.
	Number.	Amount due upon their certificates at the dates their names were dropped from the roll.	One year's pension at their annual rate.	Total amount saved thereby.	Amount illegally drawn and refunded.	Number.	Amount annually saved thereby.	Number.	Accrued pension due these claimants as first payments.	One year's pension at their annual rate, if allowed.	Total amount saved by such rejections.	Aggregate saving from all sources.		Per diem allowance to the special agents.	Actual expenses incurred by the special agents.	Total.		
1,830	477	\$46,372 22	\$52,147 80	\$98,520 02	\$6,129 14	68	\$5,580 96	480	\$238,997 95	\$52,868 88	\$291,866 83	\$402,096 95	\$23,472 00	\$14,763 80	\$38,235 80	\$363,861 15		

Attorneys: Suspended, 77; debarred, 52; disbarred, 24; dropped, 45; restored 21.

Criminal prosecutions: Cases submitted, 103; indictments, 35; convictions, 29; acquittals, 6; nol. prossed, 2; awaiting action, 99.

Condition of files: Number of claims in the investigation-files July 1, 1877.

Number of claims in the investigation-files July 1, 1878.

Increase in number during the year	217
Number of claims in the correspondence-files July 1, 1877	456
Number of claims in the correspondence-files July 1, 1878	369

Decrease in number during the year

Total increase in the files

87
—
130

TABLE VII.—Comparative statement, by agencies, of the number of pensioners on the rolls at the beginning and close of the year.

Location of agency.		Army.		Navy.		War of 1812.		Total number of pensioners on roll June 30, 1878.	Total number of pensioners on roll June 30, 1877.
City.	State.	Invalids.	Widows, &c.	Invalids.	Widows, &c.	Survivors.	Widows of, &c.		
Boston	Massachusetts ..	8,360	7,484	390	370	460	126	17,190	17,355
Canandaigua	New York	8,415	6,556	.....	.....	991	302	16,264	16,591
Chicago	Illinois	10,863	6,661	60	36	496	156	18,272	18,842
Columbus	Ohio	11,421	8,903	40	68	957	348	21,737	22,157
Concord	New Hampshire ..	8,850	7,450	114	110	867	163	17,554	17,749
Des Moines	Iowa	6,596	3,060	.....	.....	213	54	9,923	10,017
Detroit	Michigan	6,156	3,634	20	26	361	102	10,299	10,425
Indianapolis	Indiana	8,690	5,611	.....	.....	336	154	14,791	15,167
Knoxville	Tennessee	2,617	3,782	35	48	1,511	599	8,592	8,989
Louisville	Kentucky	2,106	3,176	6	11	514	202	6,015	6,129
Milwaukee	Wisconsin	5,625	3,739	19	18	234	66	9,701	9,748
New York	New York	6,581	5,940	388	337	667	319	14,232	14,251
New Orleans	Louisiana	1,012	1,429	26	18	1,117	396	3,998	4,331
Philadelphia	Pennsylvania	8,114	6,058	260	289	389	263	15,373	15,789
Pittsburgh	Pennsylvania	6,604	4,489	31	33	218	87	11,462	11,291
Saint Louis	Missouri	7,202	3,915	25	16	479	131	11,768	12,035
San Francisco	California	1,013	296	47	12	52	10	1,430	1,379
Washington	Dist. of Columbia	9,236	4,736	320	313	545	247	15,397	14,398
Total .....	.....	119,461	86,919	1,781	1,705	10,407	3,725	223,998	226,643

TABLE IX.—Statement of the rates per month, and the number pensioned to each rate, of the Army and Navy invalids on the roll June 30, 1878.

Rates.	\$1.00.	\$1.33.	\$1.60.	\$1.87.	\$2.00.	\$2.25.	\$2.50.	\$2.66.	\$3.00.	\$3.20.	\$3.33.	\$3.40.	\$3.50.	\$3.75.	\$4.00.	\$4.25.	\$4.50.	\$5.00.	\$5.25.	\$5.33.	\$5.50.	\$5.62.	\$5.66.	\$5.75.	\$6.00.	\$6.25.	\$6.37.	\$6.50.	\$6.66.	\$6.75.	\$7.00.	\$7.25.	
Army.....	529	5	4	2	10,643	9	7	1,282	4,252	4	.....	1	.....	132	27,802	163	1	2,173	1	1,037	1	7	45	1	18,006	30	16	3	38	2	439	1	
Navy.....	2				94		5	9	39		2		3		430		1	52	1	5	1				206	1						6	..
Total.....	531	5	4	2	10,737	9	12	1,291	4,291	4	2	1	3	132	28,232	163	2	2,225	2	1,042	2	7	45	1	18,212	31	16	3	40	2	445	1	

Rates.	\$7.50.	\$7.75.	\$8.00.	\$8.25.	\$8.33.	\$8.50.	\$8.75.	\$9.00.	\$9.37.	\$9.50.	\$9.75.	\$10.00.	\$10.20.	\$10.25.	\$10.50.	\$10.62.	\$10.75.	\$11.00.	\$11.25.	\$11.33.	\$11.50.	\$11.66.	\$11.75.	\$12.00.	\$12.25.	\$12.50.	\$12.75.	\$13.00.	\$13.25.	\$13.33.	\$13.50.	\$13.75.	\$14.00.	\$14.25.
Army.....	451	.....	18,004	2	5	617	3	35	1	2	.....	4,264	1	2	8	7	.....	15	2	60	15	2	.....	4,730	3	105	254	97	2	38	4	5	1,832	2
Navy.....	17	1	306	.....	1	1	2	7	.....	3	6	59	.....	.....	1	.....	18	6	.....	1	3	.....	69	.....	.....	20	1	4	15	.....	.....	28	3	
Total.....	468	1	18,310	2	6	618	5	42	1	5	6	4,323	1	2	9	7	18	15	2	61	18	2	2	4,799	3	125	255	101	17	38	7	5	1,860	5

Rates.	\$14.50.	\$14.75.	\$15.00.	\$15.62.	\$15.75.	\$16.00.	\$16.25.	\$16.50.	\$16.66.	\$16.75.	\$17.00.	\$17.50.	\$18.00.	\$18.25.	\$18.50.	\$18.75.	\$19.00.	\$19.25.	\$19.50.	\$20.00.	\$21.75.	\$22.00.	\$22.25.	\$22.50.	\$23.00.	\$23.75.	\$25.00.	\$26.00.	\$26.25.	\$26.66.	\$30.00.	\$31.25.	\$36.00.	\$38.50.	\$40.00.	\$50.00.	\$72.00.	Total.
Army.....	1	1	1,239	1	.....	623	1	14	16	603	6	11,052	3	50	1	760	2	.....	2	.....	1	1	1	1	1	1	1	1	1	1	204	324	23	.....	1	681	11	\$119,461
Navy.....	1	.....	27	.....	9	4	.....	.....	.....	2	1	140	4	1	.....	12	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	7	1	1	20	.....	1,781	
Total.....	2	1	1,266	1	9	627	1	14	16	605	7	11,192	4	51	2	772	2	2	2	2	2	1	1	1	1	1	1	1	1	1	206	331	24	1	701	11	121,242	

NOTE.—The 10,407 survivors of the war of 1812, who are pensioned at the rate of \$8 per month, are not included in the above.

TABLE X.—*Pension claims filed and allowed since 1862.*

For the year ending June 30—	Army.				Navy.				War of 1812.				Aggregate number of applications filed.	Aggregate number of claims allowed.
	Applications filed.		Claims allowed.		Applications filed.		Claims allowed.		Act of February 14, 1871.		Act of March 9, 1878.			
	Invalids.	Widows, &c.	Invalids.	Widows, &c.	Invalids.	Widows, &c.	Invalids.	Widows, &c.	Survivors.	Widows of, &c.	Survivors.	Widows of, &c.		
1862.....	1,362	1,000	335	.....	60	65	78	49	.....	.....	.....	.....	2,487	462
1863.....	26,380	22,377	3,938	3,630	290	285	183	133	.....	.....	.....	.....	49,332	7,884
1864.....	20,263	32,627	16,770	22,198	385	324	271	248	.....	.....	.....	.....	53,599	39,487
1865.....	27,299	44,464	14,962	24,693	455	466	250	266	.....	.....	.....	.....	72,684	40,171
1866.....	35,799	28,732	22,645	27,076	350	375	238	218	.....	.....	.....	.....	65,256	50,177
1867.....	15,905	20,265	16,452	19,660	250	333	137	233	.....	.....	.....	.....	36,753	36,482
1868.....	7,292	13,099	9,325	19,242	170	207	135	219	.....	.....	.....	.....	20,768	28,921
1869.....	11,035	14,496	7,120	15,695	290	245	172	209	.....	.....	.....	.....	26,066	23,196
1870.....	12,991	11,400	5,572	12,340	260	200	149	160	.....	.....	.....	.....	24,851	18,221
1871.....	8,837	8,985	7,807	8,282	190	142	127	117	20,741	5,074	198	31	43,969	16,562
1872.....	8,857	6,755	6,317	7,120	240	178	151	124	6,546	3,815	17,504	3,117	26,391	34,333
1873.....	8,728	6,427	6,422	3,949	248	120	129	124	1,481	1,299	3,186	2,242	18,303	16,052
1874.....	9,302	5,603	5,758	3,051	228	151	179	101	737	713	563	810	16,734	10,462
1875.....	11,926	5,294	5,598	4,614	310	178	162	122	425	571	240	416	18,704	11,152
1876.....	17,030	5,264	5,225	4,292	344	130	135	84	319	436	73	168	23,523	9,977
1877.....	16,532	5,269	7,134	3,790	271	97	148	71	198	348	57	126	22,715	11,326
1878.....	18,812	6,661	7,308	3,456	300	131	106	94	159	284	21	48	44,587	11,962
Total.....	258,350	238,718	148,688	183,088	4,641	3,627	2,750	2,572	30,606	12,540	21,842	6,958	566,722	366,827

NOTE.—1,064 survivors and 743 widows, &c., rejected under act of February 14, 1871, have been reopened under act of March 9, 1878, but are not included in the above as applications filed under the latter act.

TABLE XI.—*Number of pensioners on the roll at the termination of each fiscal year since 1861.*

For the year ending June 30—	Invalids.	Widows, &c.	Total.	Addition.	Reduction.
1861.....	4,337	4,299	8,636	.....	.....
1862.....	4,341	3,818	8,169	.....	467
1863.....	7,821	6,970	14,791	6,622	.....
1864.....	23,479	27,656	41,135	26,344	.....
1865.....	35,880	50,106	85,986	44,851	.....
1866.....	55,652	71,070	126,722	40,736	.....
1867.....	69,565	83,618	153,184	26,462	.....
1868.....	75,957	93,686	169,643	16,459	.....
1869.....	82,859	105,104	187,963	18,320	.....
1870.....	87,521	111,165	198,686	10,723	.....
1871.....	93,394	114,101	207,495	8,809	.....
1872.....	113,954	118,275	232,229	24,734	.....
1873.....	119,500	118,911	238,411	6,182	.....
1874.....	121,628	114,613	236,241	.....	2,170
1875.....	122,989	111,832	234,821	.....	1,420
1876.....	124,239	107,898	232,137	.....	2,684
1877.....	128,723	103,381	*232,104	.....	33
1878.....	131,649	92,349	223,998	.....	8,106

* See page 10 of this report, under title "Annual reports of agents for paying pensions," paragraph four.

THE HISTORY OF THE CITY OF LONDON, FROM THE FIRST BEGINNING OF THE CITY, TO THE PRESENT TIME.

Year	Month	Day	Event
1666	Sept	2	Fire began in the City of London.
1666	Sept	5	Fire spread to the Tower of London.
1666	Sept	6	Fire spread to the Palace of Westminster.
1666	Sept	7	Fire spread to the City of London.
1666	Sept	8	Fire spread to the City of London.
1666	Sept	9	Fire spread to the City of London.
1666	Sept	10	Fire spread to the City of London.
1666	Sept	11	Fire spread to the City of London.
1666	Sept	12	Fire spread to the City of London.
1666	Sept	13	Fire spread to the City of London.
1666	Sept	14	Fire spread to the City of London.
1666	Sept	15	Fire spread to the City of London.
1666	Sept	16	Fire spread to the City of London.
1666	Sept	17	Fire spread to the City of London.
1666	Sept	18	Fire spread to the City of London.
1666	Sept	19	Fire spread to the City of London.
1666	Sept	20	Fire spread to the City of London.
1666	Sept	21	Fire spread to the City of London.
1666	Sept	22	Fire spread to the City of London.
1666	Sept	23	Fire spread to the City of London.
1666	Sept	24	Fire spread to the City of London.
1666	Sept	25	Fire spread to the City of London.
1666	Sept	26	Fire spread to the City of London.
1666	Sept	27	Fire spread to the City of London.
1666	Sept	28	Fire spread to the City of London.
1666	Sept	29	Fire spread to the City of London.
1666	Sept	30	Fire spread to the City of London.

THE HISTORY OF THE CITY OF LONDON, FROM THE FIRST BEGINNING OF THE CITY, TO THE PRESENT TIME.

REPORT

OF THE

SUPERINTENDENT OF THE CENSUS.

NEW HAVEN, CONN.,
January 17, 1878.

SIR: In compliance with your instructions, I have the honor to submit the following suggestions respecting the census of the United States required, by the first article and second section of the Constitution, to be taken in 1880.

By the twenty-third section of the act of May 23, 1850, it is provided "that if no other law be passed providing for the eighth or any subsequent census of the United States, on or before the 1st day of January of any year when, by the Constitution of the United States, any future enumeration of the inhabitants thereof is required to be taken, such census shall in all things be taken and completed according to the provisions of this act."

It appears, thus, that legislative sanction and provision already exist for the taking of the tenth or any subsequent census of the United States. I cannot, however, refrain from the strongest assertion of the impolicy of continuing to enumerate the population of the country under the act of 1850. That law was passed when statistical science was in its infancy and the art of collecting statistical data was yet in a rude and imperfect state. The scheme of enumeration then erected was never a good one, while, so far as it was suited to the then existing conditions of settlement and industry, the country has been steadily growing away from it through the period that has since elapsed.

To take the tenth census under the provisions of the act of 1850 would be to secure the minimum of statistical result at almost a maximum of annoyance, delay, and expense.

The principal points at which changes in the census scheme as at present existing seem to be required are the following:

1st. *As to the persons who shall superintend the census in the several States.*

The act of 1850 provides that the marshals of the several judicial districts of the United States shall direct and superintend the enumeration, with the power of appointing assistants actually to conduct the work.

The object of this provision would seem to have been to charge this duty upon some body of officers already in service, in order to save either the trouble or the expense of bringing a new set of officials into existence for the purpose. But the work of census-taking is so far exceptional and unique in its requirements as the rather to create the presumption that those who are to undertake it should be selected for the purpose. Between the duties of the United States marshal and those of a supervisor of the census there is no very clear or close connection. A man might be the most energetic and efficient marshal on the lists of the Department of Justice, yet have less than ordinary qualifications

for organizing and superintending the taking of the census—a duty demanding a high degree of clerical capacity and a fitness clearly to conceive and forcibly to impart to the subordinate enumerators the many precise and delicate distinctions which are required properly to answer inquiries of the census schedules.

Other objections, however, withstand the delegation of United States marshals to this duty. One is, that the formation of judicial districts is determined by reasons altogether different from those which should determine the formation of census grand divisions.

Southern Florida, with its innumerable reefs and keys, is periodically strewn with wrecks. From the same facts, taken in connection with its proximity to the islands of the Gulf, it affords great facilities for smuggling. For these reasons it is most properly constituted a judicial district, and for that reason most improperly it is, by the law of 1850, constituted a census district, with 5,775 inhabitants enumerated by a single assistant marshal, with a United States marshal to overlook the important operation. Northern New York, with nearly two and a half millions, also constitutes a census district, and its six or seven hundred assistant marshals are all to be instructed and overlooked by one United States marshal. Delaware is a district; so is Massachusetts. Idaho is a district; so is Indiana. It is hardly necessary to say that, if superintendence is of any account in census work, the superintendence which is provided by the law of 1850 must be of the least account possible. [Report of the Superintendent of Census, November 21, 1871, p. xxiv.]

But, again, the act of 1850 charges the duty of supervising the census upon a body of officers most of whom have already as much labor and responsibility as they can in justice to themselves or to the government manage to get along with. In the largest districts, especially those which have great manufacturing interests and contain many cities, where the liability to error rises to its maximum and the need of superintendence is most felt, the marshals can give to the census only a divided attention and a fragment of their time. Under these circumstances, the best thing the marshal can do is to entrust the whole census work thus brought into his office to a deputy, who may not even be known by name at the census office. The marshal holds himself amply excused, by the number and conflicting nature of the duties imposed on him, from giving his personal attention to the service. The deputy, who may be well chosen or ill chosen for the purpose, does the work anonymously and without any appreciable degree of official responsibility, engendering thus the worst vice of public administration.

But while I would, for these reasons, strongly urge another rule of appointment for those persons who are to take the census of 1880, I would recommend that United States marshals be made eligible, with the consent of the Department of Justice, to that office. It might be found that, in a dozen or twenty districts, as they are at present formed, the marshal might be the person who could most advantageously conduct the enumeration, reference being had to his personal qualifications for the work, his acquaintance with the population of the district, the size of the district and its conditions of settlement, and the nature and extent of the duties already demanding the attention of the marshal.

The bill providing for the taking of the ninth census, which passed the House of Representatives in 1870, contemplated the appointment of one district superintendent of census for each Congressional district. Such a provision would be preferable to that now existing; but, in my opinion, a better superintendence of the work of enumeration could be furnished at a lower cost. If the Department of the Interior were authorized to appoint as supervisors of census one or more persons in each State, the aggregate number of such officers not to exceed one hundred and fifty, it being left to the department to arrange the several su-

pervisors' districts to suit the requirements of enumeration, a better result would be obtained than that contemplated by the bill of 1870, at not more than half the cost. The difference, however, would not merely be a saving in cost. Congressional districts are made up to meet a single requirement, namely, the division of the State into districts of approximately equal population. No distinction is made of city and country, of agricultural, manufacturing, commercial, and mining populations, of fertile valleys easily traversed and fully settled, and of mountain regions difficult of access and sparsely inhabited. It may be said without any suspicion of exaggeration that one hundred thousand persons, under one set of circumstances as to occupation and location, may require more superintendence for census purposes than half a million under other circumstances. Indeed, no city, however large, should have more than one responsible head for its enumeration. So far the bill of 1870, already referred to, accorded with the present recommendation, it being left, by that bill, with the Secretary of the Interior to arrange for the superintendence of the census in large cities without regard to the lines of Congressional districts.

The number of census supervisors being thus fixed, and the apportionment of the number being left to the discretion of the department, it might be provided that none of these officers should receive compensation for a longer term than —— days, or at a higher rate than \$— per day.

2d. As to the appointment of the actual enumerators.

Under the act of 1850, the power of appointing the assistant marshals who were charged with the actual enumeration was vested in the United States marshal absolutely, the department at Washington having no power to reject for any cause. It would seem that good administration would require that the department of the government intrusted with the census should have the same power over the actual enumerators which the Treasury Department or the Post-Office Department has over appointees of its local offices.

Subject, therefore, to confirmation or rejection by the Department of the Interior, it is respectfully recommended that the appointment of enumerators be intrusted to the census supervisors in their several districts.

3d. As to the formation of census subdivisions.

The same reasons which require that the appointment of enumerators should be subject to approval or rejection at the central office would seem to make it necessary that the formation of the enumeration districts should be submitted for a like revision; but in the latter case there is peculiar occasion for such a check upon the action of the local authorities, to prevent the creation of subdivisions too extensive or too populous to be enumerated within the time allowed by law. Much difficulty was experienced from this cause in 1870, several marshals insisting, against the advice of the Census Office, on assigning to assistant marshals districts which could not possibly be canvassed in compliance with law in the prescribed time, the result being either the undue protracting of the enumeration, or else the illegal letting out of the work to unauthorized parties.

4th. As to the compensation of enumerators.

This is doubtless the most important and most difficult question to be raised in providing for the taking of a census. In the United States it is of peculiar difficulty, owing to the vast range which exists in the conditions of settlement and occupation. It is, in my judgment, impracticable to frame a single rule which, with advantage to the government

and with justice to enumerators, can be applied alike to crowded cities, to ordinary agricultural communities, to the population of mountainous regions, to prairie settlements in the newer States, and to the scattered inhabitants of the grazing or mining Territories. The act of May 23, 1850, did indeed attempt to set up a rule which should meet all conditions of settlement. It provided that the assistant marshal should receive two cents for each person enumerated and "ten cents a mile for necessary travel, to be ascertained by multiplying the square root of the number of dwelling-houses in the division by the square root of the number of square miles in each division, and the product shall be taken as the number of miles traveled for all purposes in taking this census." For this rule it was claimed that its action was compensatory in the degree needed to secure substantial equity. In the closely settled regions, it was urged, the enumerator would receive chiefly a *per capita* allowance; the district being small, the mileage would be insignificant. In sparsely populated regions, on the other hand, the enumerator would obtain but a small portion of his compensation in the form of a *per capita* allowance, while the mileage would constitute his real remuneration.

It cannot be denied that there is in this rule a certain tendency toward equalizing the compensation of enumerators; but a careful study of the workings of the system at the census of 1870 has satisfied me that it allows great injustice to be done as between enumerators laboring with equal energy and zeal, while costing the government in the aggregate far more than would be needed to secure quite as thorough an enumeration under a rule which permits the exercise of administrative discretion, within certain limits, in adapting the rates of compensation to the varying conditions of settlement and occupation. There were hundreds of enumerators in 1870 who earned six and eight dollars a day quite as easily as hundreds of others earned two and three dollars. In exceptional cases, the disproportion of compensation was even greater. The general result was unfairness as toward enumerators and unnecessary expense to the government. I would therefore suggest that at the census of 1880 an aggregate amount be appropriated by Congress for the compensation of enumerators, to be applied by the department, in its discretion, subject to the provision that no person so employed shall receive more than ——— dollars a day for each full day of ——— hours, or in proportion for any fraction of a day, the enumerator's statement of time occupied in his work being verified under oath.

Such a system would entail upon the department a great responsibility and no little labor; but that responsibility should be borne by some one, and that labor performed, in justice both to the government and to the body of enumerators. The soundest system, administered with the highest discretion, will not avoid injustice to individuals, but the department could not fail, in its use of such a lump appropriation, to reach a far more equitable apportionment of pay to work than the operation of the rule of 1850 permits; while, by saving the wasteful allowances in many cases resulting from the application of the present rule, the whole enumeration could be accomplished at an expense of not more than 80 per cent.

5th. *As to the time to be occupied in enumeration.*

In England, or in some other countries of Europe, the census is taken as nearly instantaneously as possible, and the people of the kingdom are, as it were, photographed in the position they occupied at a given moment. To be more specific, the enumeration takes place with reference to a single night, and, schedules having been distributed in advance,

every householder makes return of all the persons at that time under his roof. Hotels, hospitals, jails, police stations, and all places of casual entertainment or confinement are included in the canvass.

As a matter of fact, while this photographic process is resorted to, the entire following day is occupied by the agents in collecting the schedules, and practically a portion of the second day is so occupied, though it is not the intention of the authorities that it shall be so.

On the other hand, in the census of the United States, while the enumeration is referred to a single day, (by the law of 1850 the 1st of June,) no attempt is made to photograph the people in the position they then occupy. On the contrary, the inquiry of the law is not where a man was on that day, but where was then his usual place of residence or abode. Thus, a citizen of Philadelphia, staying at the Fifth Avenue Hotel on the night of May 31, would, by the English system, be taken as of the population of New York. By the American system he would be returned in due time as having had his usual place of residence in Philadelphia at the date of the census, June 1. By some these two methods are severally called: the American, a *de jure* enumeration; the British, a *de facto* enumeration.

In the Confederated Republic of Switzerland an effort is made, on account of the political and property interests involved in determining the true population of the several cantons and communes, to combine the two methods; and, while photographing the population, in position, on a day certain, to get also the information necessary to enable the population to be redistributed among the several cantons, &c., according to the legal or usual place of residence of those enumerated.

It will be seen that the method adopted in the United States does not require that the enumeration shall be completed in a single day. On the contrary, the act of 1850 allows the work to be protracted over a period of 100 days, viz, from June 1 to September 10. It would, perhaps, be necessary to discuss somewhat at length the comparative advantages of the two methods of enumeration, were a census strictly according to the European model practicable in the United States under the existing conditions of settlement and occupation. I cannot, however, believe that the country is prepared to encounter the expense which would be involved in an effort to take a *de facto* census from Maine to California, while there is reason to apprehend that such an effort might result in a partial failure, which would allow a greater degree of error in the account of population than is admitted to exist in the case of a *de jure* census.

A protracted enumeration is essentially vicious. All that can be done by administration, under the best provisions of law, is to reduce the error within moderate limits. Many persons have a "usual place of abode" only in a qualified sense. They are here or there as business or pleasure or necessity requires. This class does not comprise the vicious or the poor alone. It embraces large numbers of persons of ample means, often of wealth, whose local ties are very slight, who drift about from place to place, where they are found in hotels and fashionable boarding-houses. A census-taker visiting such places on the 1st of August, and asking an over-busy landlady or a stupid servant for the names of those who had their usual place of abode there on the 1st of June previous, will probably fail to secure a record of the greater part of such persons. In the case of those who shift their quarters, under the stress of want, from one cheap boarding-house or tenement house to another, the chances of omission are even greater. Every additional day through which the

census is protracted affords opportunity for the escape of an additional number of persons from enumeration.

This is not a question of the strong or loose administration of the law. It is involved in the very provision of the law by which a period of 100 days is taken. The most familiar illustration is that of a ward of a city. The enumeration commencing on the 1st of June, and being protracted until the 10th of September, a family moving on the 1st of July or the 1st of August from a portion of a ward not yet visited by the assistant marshal, into a portion of another ward where the assistant marshal has already made his rounds, will, of course, escape enumeration, unless the head of the family so thoroughly appreciates the importance of the census as to be at pains to hunt up the proper person and offer information, some portions of which are never given without considerable reluctance. It is assuming more than is fair to suppose that one out of a hundred of persons so situated will be at this trouble to perform a duty necessarily more or less unpleasant. When it is considered how many thousands of persons in every large city, how many tens of thousands in a city like New York, not only live in boarding-houses, but change their boarding-houses at every freak of fancy or disgust, not to speak of those who leave under the stress of impecuniosity, and therefore are not likely to leave their future address or advertise their residence, it will be seen how utterly unfitted is such a system of enumeration to the social conditions of the country at the present time.

Of course the extent to which this liability to omission will affect the results of the census depends entirely upon the stability of the population. In rural districts, where a family may be expected to reside not only for the entire year but for a term of years in the same house, the omissions on this account are not large. The danger here is mainly from the liability of assistants to overlook houses situated on by-roads, and cabins standing in the woods or in the fields. This liability, however, is not greater in an enumeration protracted over three or four months than in an enumeration taken on a single day. But wherever we have to deal with the population of cities and manufacturing towns, the percentage of loss becomes considerable. [* Report of the Superintendent of Census, November 21, 1871, pp. xxi, xxii.]

In recognition of such facts and conditions, the part of wisdom would seem to be to arm the Census Office or the Department of the Interior with sufficient control over the formation of subdivisions and the appointment of enumerators to secure the work being done in the least time practicable, without any appreciable increase of expense. If the work must drag somewhat among the mountains, that constitutes no reason why it should drag in the valley. If weeks are required for the enumeration of mining regions or scattered agricultural populations, days will suffice to canvass large cities and compact manufacturing towns. There is no such place in the United States where a sufficient number of bright, active, prompt, well-spoken young men cannot be obtained to begin and close the work between two Sundays.

6th. *As to the several schedules for enumeration.*

The act of 1850 contained six schedules, which were, without reference to the order in which they stood in the law, as follows:

1st. The population schedule, from which are obtained the statistics of age, sex, color, occupation, nativity, &c.

2d. The mortality schedule, from which are obtained the statistics of the number and causes of deaths occurring during the twelve months immediately preceding the census date; the occupation, age, sex, color, nativity, &c., of the deceased.

3d. The agricultural schedule, from which are obtained the statistics of farms, live stock, and farm products.

4th. The industrial schedule, from which are obtained the statistics of manufactories, mining, the fisheries, &c.

5th. The "social statistics" schedule, highly miscellaneous in its subject-matter, covering churches, schools, libraries, newspapers, wealth, taxation, pauperism, crime, wages, &c.

6th. The slave schedule.

* Ninth Census, vol. 1, Population and Social Statistics, pp. xxi-xxii.

The last-named schedule dropped out of itself at the census of 1870, by reason of the late Constitutional amendments.

The 5th schedule as numbered above, that relating to social statistics, was the only one which, by the act of 1850, was not to be carried around and filled up by the regular assistant marshals, each in his own subdivision. For the purposes of enumeration, so far as this schedule was concerned, the United States marshal was authorized in his discretion to appoint a special deputy or deputies within the judicial district, on whom this duty should be charged. In case of such appointments, the regular assistant marshals were to be relieved of all responsibility relating to the social statistics, and to be deprived of all claims to the compensation allotted to that service. Under this provision of the act of 1850, special deputies were appointed by the marshals of many judicial districts, constituting a majority of the States of the Union, with results altogether superior to what could have been obtained through the regular enumerators, owing to the peculiar nature and requirements of the work involved in collecting the social statistics.

For the census of 1880 I would respectfully recommend the extension of the policy of the act of 1850, in allowing the appointment of special deputies for special work.

The agricultural schedule should not be divided from the population schedule. It can never be worth while to have one man canvassing an agricultural district to secure the statistics relating to the inhabitants and another going over the same ground obtaining the statistics relating to farms and farm productions. In general, too, the mortality schedule should not be divorced from the population schedule, for, as only one death may be expected to occur in any district for every thirty, forty, or fifty living inhabitants, it could never pay to carry around the mortality schedule by itself, unless the compensation for deaths reported were to be increased greatly above what is allowed by the act of 1850. Even in respect to the statistics of mortality, however, the Census Office should have a discretionary power to withhold the schedule from the regular enumerators, for there are many cities, embracing in the aggregate several millions of inhabitants, where a compulsory registration of deaths exists, affording data more complete and exact than could be expected from a popular canvass by an enumerator without professional knowledge of the causes of death. The Census Office, with but a portion of the funds required to pay for a separate canvass of the field, could secure transcripts of the registration records, which would have a far higher value.

But it is with respect to the statistics of manufactures that the importance of special agencies in enumeration most clearly appears. The Census Office should be empowered to provide, at its discretion, for the collection of the entire manufacturing statistics of any part of the country, and for the collection of the statistics of any branch of manufacturing industry throughout the entire country.

In all large cities and considerable manufacturing towns the manufacturing establishments should be enumerated as a whole, and by officers specially appointed for the purpose. There can be no reason why the same officer should conduct the two classes of inquiries. The regular enumerators will have enough to do in canvassing the population of their respective districts. To charge upon them a duty so different in its nature and requirements can only distract their attention and perplex their minds.

Moreover, "the necessities of enumerating the population of cities and large towns require the subdivision of territory and the assignment of enumerators according to lines of demarcation, which, however natural

or logical with respect to the population, do not correspond to the conditions of the manufacturing industry of the place." [Report of the Superintendent of the Ninth Census, Remarks on the Tables of Manufacturing Industry, Vol. Industry and Wealth, p. 372.]

Thus, in no small number of cases, the factory where the hands are employed and the work is done is distinct from the office where the complete accounts of wages, labor, and materials are kept. The two may fall into different subdivisions, and between the two the establishment may be enumerated in neither.

Again, the qualifications required for good work in collecting the statistics of manufacturing industry are in excess of those required for the proper canvass of population. In a city like Indianapolis or Worcester it would be easy to find one good man who should intelligently conduct the inquiries of the census in respect to all the varied industries of the place; it would be altogether unreasonable to expect that each one of the fifteen or twenty agents charged with the count of the inhabitants would do equally well by that fraction of the manufacturing interests which should fall within his subdivision.

Lastly, it is only when the manufacturing establishments of a city are taken as a whole, by some one who gives himself solely and professionally to the work, that the liability to grave omissions can be overcome.

Any one who stops to consider will see how easy it would be, in a considerable manufacturing town, for an assistant marshal, visiting every inhabited dwelling and enumerating thoroughly every family in the place, to omit many important establishments of productive industry. There are instances in great cities like Philadelphia, where large industries are carried on below the sidewalk, and one might pass and repass frequently without receiving any intimation that hundreds of operatives, aided by steam-power, were working almost under his feet. The only entrance to many other establishments in such a city is from alleys or interior courts, where the work of enumerating families would not lead the assistant marshal; indeed, into which, with the best intention on his part, he would hardly find his way. Other establishments in great numbers are carried on beneath the same roof with more pretentious industries, or in lofts above stores. In numerous cases the most diverse industries not only occupy the same building, but take their power from the same wheel. Such are the difficulties which beset the enumeration of manufacturing industry. If every establishment occupied a distinct and an entire building, situated squarely upon a public street, and with some conspicuous blazon of what was going on within, it would then, beyond question, be the fault of an enumerator if a single one should be omitted from his returns; but when, instead, establishments of this nature are disposed about and hidden away with a promiscuousness and an intricacy of which the above will hardly convey an idea, it is not to be wondered at that an officer wholly unfamiliar with the manufacturing industries of his district, and perhaps unacquainted with the conditions of a single important industry, should make a very incomplete and partial return of production. [Report of the Superintendent of the Ninth Census, Remarks on the Tables of Manufacturing Industry, Vol. Industry and Wealth, pp. 371-2.]

On the other hand, an officer specially charged with the enumeration of the manufactures of a city would not only visit establishments which stared him in the face, but he would complete his lists by reference to directories and by inquiries within each special trade; he would become expert in dealing with the special difficulties of that service; he would get "an eye" for productive establishments; his ear would become preternaturally quick to detect the movements of machinery; and his sense of smell would become as keenly alive to the peculiar odors of different branches of manufacture as is reported to have been the case with a late distinguished minister of the United States at a northern court.

But it is not only with reference to the manufactures of large cities and considerable towns that the Census Office might advantageously exercise its discretion in reserving the collection of statistics for a special agent. There are not a few branches of industry in the United States which should be canvassed as a whole from the central office. Here, let us suppose for the sake of illustration, is a branch of industry which

embraces 200 establishments throughout the country, producing to the value of \$10,000,000. These establishments may fall into 75 different subdivisions. No one of the 75 enumerators has more than four or five such establishments to deal with; most of them have but one or two. Of the 75 enumerators few know anything, to start with, about this branch of manufacture; they have no time to learn anything about it by study; they have not enough to do with it to acquire any knowledge through experience. The result is certain to be that the returns from this branch of production will be partial, fragmentary, and, in a high degree, erroneous.

While this is true, in a degree, of manufacturing industry in the settled States, there is one important interest the products of which, by the act of 1850, are to be enumerated in the same schedule, for which the ordinary agencies of enumeration are wholly and hopelessly inadequate. I refer to the mining of the metals, and especially of the precious metals. The returns of gold and silver production at each of the three censuses taken under the act of 1850 have been grossly, often grotesquely, imperfect. The present Superintendent of Census having been invited by a committee of the House of Representatives, in the summer of 1869, to lay before them his views respecting the enumeration of manufacturing industries at the then approaching census, offered the following remarks relative to gold and silver mining:

The fullest examination which I have been able to give to the subject inclines me to the belief that our mining industries, in part, if not altogether, deserve a special treatment in the coming census. Coal mining and iron mining, indeed, dealing as they do with heavy products and being carried on almost exclusively within the limits of settlement and civilization, are susceptible of treatment like any other forms of industry. I do not, however, regard it as possible to make an enumeration of the gold and silver mining of the United States by the ordinary machinery of marshals and proposed blanks, which shall be in any way satisfactory. On the contrary, the probability is that the result under such a system would either be deceptive in the highest degree or else depart so manifestly from the real truth of the case as to become simply grotesque.

Such are the inherent difficulties of enumerating gold and silver product, owing to the high value for its bulk and to the thousand reasons and opportunities for concealment or exaggeration, and such are the peculiar and extraordinary difficulties in our own case, owing to the fact that these industries are mainly pursued at a distance from settlement, and in a wild, wasteful, spasmodic way, that for the officials in charge of the census to simply classify and compile the returns of product which might be made to them, and to publish these as authentic and official without exercising the freest criticism, and testing every part by information independently acquired, would be to discredit the whole work rather than to add anything to its value. I reach the conclusion, then, with all deference, that the machinery of blanks solely in the hands of men having no particular knowledge of the subject—in the hands, that is, of the average marshal or assistant marshal—would be found wholly inadequate to the work of enumerating the gold and silver product of the country.

I am fully of the opinion that the investigation of the mining interests should be placed in the hands of experts, with somewhat more of freedom and fullness of method than is necessary in the case of industries which deal with bulky products, which are prosecuted in the midst of settlement and civilization, and which have long ago assumed something like stability of form and regularity of conditions, if, indeed, they have not acquired traditional limits within which their progress can safely be calculated.

The recommendation thus made led to certain modifications of the schedules of the act of 1850 in the bill submitted by the committee to the House of Representatives, but the whole measure thus proposed having failed to become a law, the census of 1870 was taken under the act of 1850, without exception of the gold and silver mining industries.

In publishing the results of the enumeration the Superintendent of Census prefaced the statistics of gold and silver product with the following remarks:

The statistics of the gold and silver product, as obtained by the census, are here-

published in conformity with what is understood to be the requirement of law; but it would be wholly unjustifiable were the figures to be put forth without a distinct and emphatic disclaimer of their validity and authority. [Volume on "Industry and Wealth," p. 750.]

The importance of the subject, in view of the approaching census, has led me to solicit a statement thereon from Prof. J. D. Whitney, of Harvard University, author of a work of the highest authority on "The Metallic Wealth of the United States," and formerly chief of the California survey. Prof. Whitney has kindly consented to prepare a paper, which is submitted herewith. I feel confident that the department and Congress will not fail to recognize the value of the suggestions of this eminent scientist within a field which he has explored more carefully than any other living man.

But while, for the reasons given at so much length above, recommending that the Census Office be authorized, in its discretion, to make special arrangements and provision for enumerating branches of manufactory and mining industries, which in their nature cannot advantageously be subjected to a canvass by the ordinary agent of the census, I would not propose that the schedule of manufactures be wholly taken away from the enumerators.

The miscellaneous manufactures of rural districts will not, perhaps, be very well canvassed by the officers charged with obtaining the statistics of population and agriculture; but the great cost of conducting a separate enumeration by experts of establishments scattered over so wide a field makes it the part of prudence to accept that agency as the best which the circumstances of the case allow.

7th. *As to the subjects of inquiry in the enumeration.*

This is a matter rather to be canvassed carefully in committee than discussed in a paper like the present. One or two general remarks under this head will suffice.

First. A distinction to be observed in any enlargement of the scope of the enumeration is that between inquiries to be propounded to a comparatively few persons of exceptional opportunities for affording information and inquiries to be propounded to the people generally. The addition of an entirely new schedule of a hundred interrogatories, the answers to be exacted from the offices of every railway corporation in the United States, would not only bring less strain upon the agencies of the census, but it would impose indefinitely less labor in compliance with its requirements than would a single new interrogatory added to the population schedule. The latter would impose a duty upon more millions of persons than the former would upon hundreds. In the same way a special schedule for each of a score of manufacturing industries would make a smaller addition to the labor of enumeration than the addition of a new crop to the agricultural schedule, which will have to be filled out in the case of hundreds of thousands, or even of millions, of farms.

Another distinction of importance is that between schedules to be committed to the ordinary enumerators and those to be intrusted to experts or other special agencies. The aggregate number of inquiries demanded of the enumerator will, at the least, constitute a considerable mental load; while the necessities of a prompt enumeration, and his own desire to make a handsome *per diem*, will lead him to dwell very briefly in each house he visits. To increase his duties is inevitably to impair the value of the results. It is easy to ask too much of an enumerator, as it is easy to require too much of children in the schools. Indeed, it is hard not to do so. Every man who is called on to take any part in the preparation of the schedules of the census will necessarily feel the impulse to add interrogatories to those already required; while the press-

ure from specialists throughout the country will be very strongly felt in the same direction. Such a tendency cannot be yielded to without endangering the whole fabric. In my opinion, the act of 1850 already requires too much of the house-to-house enumerator. As the census widens, it weakens. Unless the attention of the enumerator is held strongly to a comparatively few subjects, and those very simple, the results will have value inversely according to their amount. On the other hand, no such close natural limitation exists in respect to those inquiries which are to be propounded to persons representing special interests, particularly when the enumeration is conducted by experts, each in his own line of investigation. Here it is simply a question how far Congress deems it proper and desirable that such inquiries should be carried.

That the existing body of interrogatories, as by the schedules in the act of 1850, should be thoroughly revised, must, I think, be evident to every one who examines them even casually. The questions relating to *real and personal* property on the population schedule should be stricken out. These inquiries cause more vexation and trouble to the enumerators than any six others in the schedule, and the results are worse than worthless; they are sure to be false and deceptive. It is an additional consideration that no other inquiries cause so much irritation and annoyance to the masses of the people. The attempt to enumerate *private libraries*, as by the schedule of social statistics, should also be abandoned. On the other hand, if the statistics relating to *crime and pauperism* are still to be gathered through the agency of the census, the interrogatories should be increased fourfold, and be made more precise and searching in order that the results may be of value. In my opinion the agricultural schedule should be limited to the *crops of great and general importance*. Where a crop is confined to few localities better data can be obtained from "the trade" than will be found in the census returns. When an enumerator has again and again asked the stated questions in regard to such a crop, receiving invariably a negative answer, he is almost certain to neglect the inquiry in the few cases where he might have obtained a positive result. It is only in regard to crops of considerable importance and of general cultivation that the average enumerator will do his duty carefully and thoroughly. The interrogatories of the agricultural schedule relating to honey and bees-wax, silk cocoons, grass-seed and clover-seed, and perhaps others, should give way to new inquiries of more present and pressing importance, such as the acreage of wheat, cotton, corn, and other principal crops.

8th. *As to the use of so-called "Prior Schedules."*

This question concerns the delivery at each dwelling-house, prior to the date of enumeration, of a householders' schedule, with the requirement that it be filled up awaiting the call of the enumerator on the day of the census, who reads over the entries to verify the statements made, and carries the paper away as his return for that house and family. It is evident that such a system must effect a great saving of time on the day of enumeration, and that it is thus naturally a part of a *de facto* census. With such an enumeration as is herein proposed, however, the claim for the advantages of using the "prior schedule" must be mainly on the ground of the superior accuracy attained thereby. On this ground the claim cannot well be disputed. The assistant marshal, under the act of 1850, calls upon families in the course of his rounds, at hours when the heads of families are habitually absent. In a not inconsiderable proportion of cases, moreover, the wife also will be away from home. The duty of making answer, therefore, may devolve upon servants or children, who are naturally incapable or unprepared to give full and

accurate information on the points covered by the enumeration. To a great extent the "prior schedule" obviates the liability to error on account of the absence of the responsible head of the family, and gives a distinctly higher value to the statistical results obtained.

The objection to the adoption of this plan at a census of the United States is found in the expense of requiring the canvasser to go twice throughout his district—once to leave the schedules, and again to take them up. In cities and manufacturing towns this plan might even be found to expedite the enumerator's work, saving more time on the definitive visits, by giving him his schedules already, in a large proportion of cases, filled, than would be occupied by the preliminary visits in leaving the schedules. In flourishing agricultural settlements the adoption of this plan would doubtless considerably increase the labor of enumeration, the only compensation therefor being found in the improved character of the returns. In sparsely settled districts, however, where the time of the enumerator would in any case be largely spent in passing from house to house, the requirement of a double visit would nearly, though never quite, double the labor of taking the census, for which, of course, the government must pay. It was the consideration of such districts as those last indicated which furnished the main argument against "prior schedules" in the session of 1869-'70. The true solution of the problem still seems to me to be that which was suggested in the Report of the Superintendent of the Census in 1871, (vol. on Population and Social Statistics, p. xxvii,) viz, by using the "prior schedule" as an auxiliary of the enumerator, but not requiring its *legal service*, and authorizing the Census Office to dispense with this agency, even in this modified form, wherever the conditions of occupation and settlement shall seem to require it.

By distributing schedules in advance, through personal visitation in towns and cities, and through the mail in the case of families living at a distance from settlements, four out of five, or even nine out of ten, families could be served in this way, without any appreciable addition to the expense.

It would seem that the substantial advantage should be secured without carrying the scheme out to a theoretical completeness. Where schedules should not have been duly received or properly attended to, the assistant marshal would be no worse off with respect to the enumeration of families than before; and even in many of these cases, heads of families might casually become acquainted with the character of the inquiries by seeing the schedules in the houses of their neighbors, and be better prepared in consequence to answer promptly and correctly.

In the foregoing paragraphs I have traced the general outlines of a scheme of enumeration which, without aiming at the perfection of statistical result which is obtained in European censuses, would accomplish the objects of the act of 1850, with not only a great improvement as to accuracy, but a decided saving in cost* to the government.

Very respectfully, your obedient servant,

FRANCIS A. WALKER,
Superintendent of Census.

Hon. C. SCHURZ,
Secretary of the Interior.

* The cost of the 7th census (1850) was \$1,329,000. The cost of the 8th census (1860) was \$1,922,000, an increase of 44 per cent. The cost of the 9th census (1870) was \$3,336,000; but of this, \$685,000 was "additional compensation," paid under the resolution of June 9, 1870, and the acts of March 3, and April 20, 1871. These several acts were passed by Congress in view of the great advance in the prices of articles of subsistence between 1860 and 1870. Deducting this amount, the cost of the 9th census showed an advance over that of 1860 of 38 per cent.

APPENDIX.

CAMBRIDGE, MASS.,
January 15, 1878.

DEAR SIR: The collection of mining statistics is a subject which has occupied much of my time and thoughts during the past twenty-five years, and I cheerfully assent to your request for a statement of my views in regard to the mining department of the United States census, and the conditions which prevail in our own country in reference to the development of our mineral resources and the statistical setting forth of the nation's progress in this branch of industry.

Before commencing, allow me to make a brief statement of my own claims to be heard in reference to these questions, that I may not be thought to have a desire to intrude opinions not based on a considerable amount of investigation and personal acquaintance with the subject I propose to discuss.

In 1854 I published the "Metallic Wealth of the United States, Described and Compared with that of Other Countries," a work based on six years of investigation of the principal mining districts of the United States, a part of this time having been spent by me in a detailed exploration, under United States authority, of the copper and iron regions of Lake Superior, then the most important mining district in this country.

The volume to which I refer was intended to be especially statistical, and in it I gave, as the result of laborious compilation, the statistics of the metallic production of all the other countries in the world, from the earliest periods for which information could be obtained. The tabular statements thus prepared have been again and again copied into the leading mining publications of the world, and in various encyclopedias, and appear to have been accepted as the best which could be produced from accessible data. Since 1854 I have been almost constantly engaged in official State surveys in mining regions, and have extended my explorations over nearly the whole area of the United States, besides having made several visits to Europe, during which I have had the opportunity of becoming acquainted with mining schools, mining processes, and mining legislation on that side of the Atlantic. I have also collected a very complete library of works devoted to mining statistics. During the past three or four years I have given instruction on the subject of economical geology in Harvard College, so that I have had an opportunity of reviewing to some extent the material collected by me in this department since 1845. If, therefore, I seem to speak in this communication with some confidence in the truth and justice of my views, I trust that you will take into consideration the fact that this branch is one in which I consider myself a specialist, and that I am not discussing matters which I have not carefully studied.

I propose in this communication, having thus, as above, set forth my claims to be heard by you, to discuss the following topics:

First. The importance of an accurate knowledge of our mining resources, and of our progress in their development.

Second. What other countries have done and are doing in this department.

Third. What we have done in the way of a statistical setting forth of our own mining interests.

Fourth. What can be done to remedy defects and lead to improved results in the collection and dissemination of information in regard to the progress made by the nation in this branch of its industry.

1st. *The importance of an accurate knowledge of our mineral resources, and of our progress in their development.*

It seems hardly necessary to delay on this point, for whatever reasons will apply to the collecting of the statistics of any branch of the national wealth and industry will certainly apply equally to our mineral resources. There are, however, special conditions connected with the business of mining which make it peculiarly desirable and pecuniarily important that a most careful watch should be kept over this department of our industry—more than over any other. This has been long recognized and acted on by most civilized governments, as will be seen farther on in this paper.

Mineral deposits of every kind stand on an entirely different basis from all other industrial resources. The products of the soil, if once destroyed, will again be replaced by the bounteous hand of nature. Forests, however recklessly cut down, will in time grow up again. The soil may be exhausted by the improvident farmer, but its fertility may be regained by skillful treatment. The mineral treasures of the earth, on the other hand, are there once for all; and if wasted in the removal or destroyed by reck-

less or unskilled management they are gone forever. And the temptation to sacrifice the future to the present is in new countries often very great. Abundant instances might be given illustrating these statements if time permitted. Let it be sufficient, for the present, to say that in some important portions of our coal-mining districts more than 40 per cent. of the original stock of the precious material has already been lost by careless or reckless mining.

It is for reasons like these that in all civilized countries, almost without exception, the mineral deposits, as well as the operations of the miner and metallurgist, have always been under the strict control of the government. Thoroughly educated and honest officials watch every step of the processes, from the first selection of the ground up to the final preparation of the mineral or metal for the market. A large proportion of the element of uncertainty, always more or less present in mining operations, is thus eliminated, and the waste of what is really a part of the national treasure is as far as possible prevented. As a very essential part of this watchful care over the public interests, the collection of mining statistics has been long recognized by the principal governments of Europe as of the greatest importance. I will now, therefore, briefly set forth what is being done in this direction by some of those countries which we are accustomed to consider as being the most advanced in their intellectual development, and which are precisely those where the mining interests have been most carefully looked after.

2d. *Collection of mining statistics by other countries than our own.*

Of all the governments of Europe the Prussian seems to stand at the head in the perfection of its mining statistics, and the punctuality and promptness with which they are made public. The Prussian mining statistics are published in the "*Zeitschrift für das Berg-, Hütten-, und Salinenwesen im Preussischen Staate*" (The Journal of the Mining, Metallurgical, and Saline Interests of the Prussian Government.) This journal is published under the direction of the ministry of commerce, mechanic art, and public works. (Ministerium für Handel, Gewerbe und öffentliche Arbeiten.) It is in quarto form, and six numbers appear each year, accompanied by a folio atlas of illustrative plates. Four of the numbers are usually occupied with details of official legislation and management (Verwaltung) of the mining interests, together with various articles written by the government mining officials or other skilled specialists, in which new mining or metallurgical processes are described and discussed, not only such as have been invented or introduced into Prussia, but also those which have been proposed in other countries. In fact, the range of these articles is wide, and embraces everything which bears on the progress of the mining art or the welfare of the miner himself. The remaining two numbers are devoted to statistics, and contain the most full and complete setting forth of everything which has been done during the previous year in the way of mining and metallurgical production throughout the country. The amount of detail with which this information is presented is indeed remarkable. Take the article coal, for instance. We have in the first place a statistical exhibition in figures of the following items, given separately for each chief mining district (Oberbergamts bezirk) and for each subdivision of the same: First, the number of establishments (Werke,) whether productive, non-productive, or producing coal in connection with other minerals; second, the weight and value of the coal produced in each mining district and subdistrict; third, the amount and value of the coal thus raised which is consumed at the mine, in running the machinery, &c., and including that which is lost in handling; fourth, number, age, and sex of persons employed, whether above or under ground, and the number of persons included in their families or supported by them. So much in figures. Fifth, a discussion, with a statistical review for each district and subdistrict, of progress made, or the contrary, during the year, as compared with the preceding year or years, and an investigation of the causes which have led to increase or decrease of production. The same thing is done for each one of the metals, as well as for the economically valuable mineral substances not included under the head of coal or metals. The metallurgical treatment of the ores is also handled in the same elaborate manner, the quality of ore treated being given, as well as the weight and value of the metal obtained therefrom, with similar discussions as to causes of gain or loss in production for each district and subdistrict. Furthermore, the number of miners injured or killed in each district and subdistrict is given, with a statement in each case of the causes of such accidents, and, when necessary, a discussion of the facts with reference to possible improvements in machinery or management. Finally, a complete statistical account of the miners' benevolent and mutual protective associations, and of their financial condition, is given. The whole body of information thus given enables any one to see almost at a glance just what the condition of the development of the mining and metallurgical interests of Prussia was during the preceding year, and how it compared with the general average of progress or with the figures given for any previous period. This fullness of detail goes back for about twenty-five years, the publication of the official "*Zeitschrift*" having been begun in 1852.

The systematic government inspection and management of the mining interests in France date back to the year 1781, which was the year of the institution of the Corps

des Mines. An official record of the doings of the Corps des Mines has been published regularly, in two volumes a year, ever since 1794, first under the name of the Journal des Mines, and since 1816 as the Annales des Mines. These volumes contain all the official legislation in regard to the mining and metallurgical interests of France, together with a great mass of valuable information relating to the working of mines and the geological mode of occurrence of minerals and ores in every part of the world, information collected by the official mining engineers for the use of the government. The series of the Annales des Mines form the most important contribution to mining and metallurgical science which exists. The statistics of French mining industry are not given in the Annales des Mines, but in a separate series of volumes, which are not published annually, but at intervals of a few years. In these, however, the statistics are worked up for each year and for each mining district with much fullness of detail, although not equal to the Prussian in this respect.

Most other states of Europe furnish in printed form, at regular intervals, statistical statements of mineral development. It will not be necessary to give detail in regard to their publications. Something may, however, be said in regard to the English publications in this line, since England is a country which, from the mining point of view, resembles our own in some respects, and especially in that the surveillance of such enterprises is much less minute than it usually is on the continent. Great Britain stands at the head of all the countries in the world in respect to quality and value of its mineral and mining productions. In both coal and iron, the two great articles of mining production, she not only surpasses all other countries taken singly, but even almost equals them all unitedly. The annual produce of iron for the whole world is about 14,000,000 tons, of which Great Britain produces a little less than half. Of coal, the produce of the world is about 275,000,000 tons; that of Great Britain, about 135,000,000.

In Great Britain, the relations of the government to the mining interest are much less direct than on the continent, and are in the main limited to police regulations, having for their object the safety of the men employed and the limitation of the hours of labor for women and children. Until within comparatively a recent period, the collection of mining statistics had been decidedly neglected and the mining business rather left to take care of itself. The great exhibition of 1851 in London revealed to the English some of their deficiencies as compared with their continental neighbors, and we have as a result a much more decided fostering on the part of the government of the mining interests than previously existed, as has been shown by the establishment of a museum of practical geology and of a mining school, and by the systematic collection of mining statistics, commenced in an incomplete way in 1848, but greatly expanded and systematized in 1855. In this last-named year the first attempt at a complete record of mining statistics for the United Kingdom was made, and every year since that time a volume of Mining Records has been published, giving the full returns of mining and smelting operations for the previous year. These returns, while not as complete or systematic as those of Prussia, owing to the different systems of inspection in the two countries, are yet very full, and especially in the details of the commercial aspects of the mining interests. The quantities and value of mineral and metallic substances imported and exported, with their origin and destination, are carefully recorded.

Outside of Europe there is no country where the progress of the mining interests and mining statistics are so fully reported as in Victoria, Australia. Full returns of all mining operations are published there for each district at the close of each quarter, and at the end of the year a complete summary of the year's operations is presented, giving every kind of statistical detail which could be asked for with the greatest minuteness. This is in addition to a yearly publication on the geology of the mining districts, in which the scientific aspects of the mineral deposits are discussed. The whole of the work is done under the direction of the Minister of Mines; and these publications are in every respect most creditable, and fully abreast of what is doing in the best-regulated countries in Europe.

The above will, I conceive, be sufficient to enable those interested to form an idea of the care and anxious attention to details with which the development of the mineral interests of European states is watched over by their respective governments. We have now to inquire what has been done in this country in this same direction.

3d. *What has been done by the Government of the United States in the way of a statistical setting forth of the progress of the development of our metallic and mineral resources?*

What has been done in this line in our own country may be set forth under two heads: First, the work of the Census Bureau; second, that of the Commissioner of Mining Statistics.

Up to within a quite recent time there has been no other source of statistical information of an official character than the United States decennial census. Nor is there any other at the present time. The office of Commissioner of Mining Statistics may still exist, but no appropriation has been made for two years for its support, as will be noticed further on. Hence it may be said that we are now, or we mostly have been

reduced to a statement made once in ten years for our knowledge of the progress of our mining interests. The census statements are also given in simple figures, without explanatory note or discussion. On the very face of it, our deficiencies are very great in this department, for that we should have only once in ten years, and then not until several years after the decade has elapsed, a summary of our mining statistics, is, as every one must admit, entirely an inadequate provision to meet our wants. But our condition is much worse than this, for it may be unhesitatingly asserted that our census statistics relating to mining and metallurgy are so deficient and so misleading that they are much worse than nothing. They not only give no trustworthy information on any point; but they actually misrepresent often in the most extraordinary degree, and in such a way that the erroneous nature of the statements can only be discovered by experts, or by those who are personally familiar with the details of the mining industry of the particular locality specified.

In proof of this assertion, I will confine myself to statements relating only to the last two censuses, viz, those of 1860 and 1870. The older ones are confessedly so imperfect and inadequate that they need not be noticed, and I will refer for the census of 1860 to a paper of my own, published in the third volume of the "Proceedings of the California Academy of Sciences" (1863,) entitled "On the Inaccuracy of the Eighth Census, so far as it relates to the Metallic and Mineral Statistics of the United States." A copy of this paper is appended to this communication, so that any further reference to the census of 1860 is unnecessary. It need only be repeated that the statements in the publications of this census in regard to our mining interests are often utterly incorrect; that they are in every respect deficient, entirely omitting some of the most important metals, and that the discussion of the data obtained exhibits such an ignorance of the matters treated as to be positively ludicrous.

It seems hardly polite or proper to be finding fault with the census of 1870 in a communication addressed to the Superintendent of that census. Yet, under the circumstances, and in view of the fact that in the published volumes of that work attention is called to the very defects which I here have to deplore, I trust that my remarks on the subject will appear justified, since I feel sure that they are not actuated by any other motive than a sincere desire that there may be some improvement in this department of the government statistical work.

I have repeatedly examined the census of 1870 with a view to obtaining information in regard to our advance in mining and metallurgy, and each time I have been forced to admit that it is a perfectly worthless and misleading work. In the first place, the system itself of reporting the facts obtained is utterly wrong. The idea that any accurate information can be obtained from columns of *values* is a fallacious one, and doubly so under the system prevailing in 1870, and still not abandoned, of a fluctuating paper currency. I can nowhere discover in the Census Report whether the values given are to be taken in depreciated paper money or whether they are reduced to a gold basis. Furthermore, no clew is given as to whether the values stated are those current at the locality specified, or at the nearest market, or at a central market like London or New York; nor is the day nor even the month stated when such valuation was made; and yet the fluctuations in the metals are great and often extremely rapid. It is not necessary to illustrate this by figures, for every one familiar with the subject is perfectly aware of the truth of these statements.

But, furthermore, the value of the products of a mine—that is, of the ore taken from the ground—is not usually known to the miner until such ore has been smelted or in some way reduced to the metallic form. Hence the valuation of the ore as taken from the mine is a matter quite obscured by various uncertainties, and there is only one safe ground on which to stand in mining and metallurgy—that is, the *quantity* of the metal actually produced. Without this element we are completely afloat; and, in my opinion, it is not too much to say that statistics which do not give this fundamental element are worthless.

The only metal for which statistics in *quantity* are given in the census of 1870 is iron. In the case of gold and silver, values would be nearly equivalent to quantities, for these metals are themselves standards of value; but in the census returns these two metals are associated together as *bullion*; so that, at once, all idea of precise knowledge in regard to them must be abandoned. Indeed, the facts in regard to the production of gold, reported in the census of 1870, are to me, who was at that time, and had been for ten years previously, working in the gold region, almost unintelligible. The general result as to quantity of bullion—i. e., gold and silver—produced is evidently very much too low. As this fact has not escaped the attention of the Superintendent (see volume of Industry and Wealth, Census of 1870) it is not necessary to speak further in regard to it. It need only be stated, that to obtain the value of the bullion product by any estimate made by adding the "value added by milling" to the value of the ore as estimated is an entire impossibility. Any result obtained in that way is not so valuable as a guess made by an expert.

Apart from errors and defects of the kind which have been already pointed out, there are others for which I find it difficult to account. For instance, North Carolina is put

down as the principal zinc-producing State of the Union, the value of the product of the metal for that State being given, in the census of 1870, at \$435,000, while that of New Jersey, a State rich in zinc mines, is put at \$100,000 only. Not having been aware that North Carolina was a zinc-producing State, I wrote to the State geologist, asking him about the matter. He replied as follows: "There are no zinc-works in North Carolina."

Whenever I have been able to test the mining statistics of the census of 1870, I have found them wrong. For instance, the manufacture of salt in the State of New York is carefully controlled and registered, it being for the pecuniary interest of both the manufacturers and the State that the produce of this article should be accurately known. The census of 1870 gives 4,977,720 bushels as the product of salt for New York in that year; the published statistics of the official inspector give 8,748,115 bushels as the correct figures. The figures of the make of iron for the year 1870 are also greatly at variance with those given by the secretary of the "American Iron and Steel Association" as the result of laborious and systematic investigation and correspondence with all the manufacturing establishments in the country. No one would hesitate for a moment which of the two statements to prefer.

The above seems to me all that is necessary to be said in regard to the mining statistics of the census of 1870. I will now give some account of the work of the United States Commissioner of Mining Statistics.

The first attempt made by authority of the United States toward the collection of information in regard to our mines, aside from the Census Reports and certain geological surveys of special districts, of which none have been ordered since 1847, was in the year 1866, when, under a provision of the appropriation act, the Secretary of the Treasury was authorized to employ commissioners or agents "to collect reliable statistical information concerning the gold and silver mines of the Western States and Territories." Under this authority two commissioners were appointed, one for the States east of the Rocky Mountains, the other for those west of the same. Neither of the gentlemen thus appointed had any previous professional or scientific acquaintance with mining matters; they, however, made two reports, each of which was published in two volumes, dated 1867 and 1868. The position of United States Commissioner of Mining Statistics seems to have, after that time, been given to one person, Mr. R. W. Raymond, who made seven annual reports on matters connected with mines and mining in the States and Territories west of the Rocky Mountains, the collection of the statistics of mines east of the Cordilleras seeming to have been abandoned after Mr. Raymond's appointment, the reasons for such abandonment never having been stated, so far as I know.

The work of the Commissioner of Mining Statistics seems to have ended with the year 1874, at or about which time the appropriation for such purposes ceased to be made, the position being, as it appears, no longer desired by Mr. Raymond. This course of action on the part of Congress is quite in conformity with the usual method of both State and United States legislative bodies in this country—of having scientific work done, not because it is desirable for the country on general principles that such work should be done, but because somebody "wants a job," to use a common but thoroughly characteristic form of expression, and because that somebody has the skill and patience to secure the passage of an act of Congress authorizing him in particular to do the work he wishes to have done and to receive the appropriated payment therefor.

The volumes published by Mr. Raymond are a mixture of some things which are good with much which is indifferent and portions which are positively bad. Their chief contents are notices of the work done in various mining districts, sometimes written expressly for the United States Commissioner, and often cut from the newspapers or reprinted from pamphlets or volumes already in circulation. Some portions of this material, however, bear evident marks of having been furnished by persons pecuniarily interested in making as good a show as possible for the mines they are describing; other parts have plainly enough come from the hands of those who were entirely unfit by nature or education to accomplish what they have undertaken. So far as statistics are concerned these volumes are almost worthless. They do not profess to furnish any except for gold and silver, and the figures given for these metals are based on those reported by Wells, Fargo & Co.'s Express. Where they differ from the published statements of the express, I have not been able to discover any sufficient reasons for such differences. I prefer myself to take the figures of the Express Company rather than those of the United States Commissioner. In short, the volumes in question are very far inferior in every respect to those published in this department by every other civilized country. They furnish no means for correlating the advance or decline of the mining interests of different regions and districts from year to year; there is neither order, method, nor accuracy of statement, and as statistical contributions to mining industry they are entirely valueless. In partial excuse for these deficiencies, the smallness of the appropriation may be alleged; and it is probably true that any attempt to limit the expenditure in any one year to a certain district of moderate area,

and thus to have the means of doing something thoroughly, would have met with opposition from the people on easily understood grounds.

I will now pass to the consideration of the last point raised by me at the commencement of this article, namely, *What can be done in the way of correcting the defects which have been shown to exist in the system thus far pursued in this country in the collection of mining statistics?*

In the first place, I candidly admit that we cannot have as perfect a series of reports of our mining progress as European nations possess, and for reasons which need but little explanation. The elaborate systems adopted in Europe have grown up in a long series of years with the government and the people. The latter are accustomed to be guided and inspected and to have their affairs closely inquired into by the government. It is not so here. I do not think that any amount of legislation on the part of Congress, even supposing such legislation to be practicable and constitutional, would succeed in giving us, even with an unlimited expenditure, an *accurate* statement of what is being done in our country in the way of mining and smelting; and when I say "accurate," I mean accurate like the Prussian or the French official mining statistics. To accomplish this it would be necessary that every mining locality should be subjected to constant vigilant inspection, on the part of the government, by scientifically educated and honest men, and that the people should be accustomed to such inspection, and willing to co-operate with the government in making it effective. It is clearly of my opinion that this is entirely impracticable; neither the character of our people, nor the nature of our government, nor the traditions of the past admit of its being done.

What, then, can be effected? In the first place, I agree entirely with the Superintendent of the Census of 1870 in the idea that *what is done must be by experts in this department*, and that mining statistics collected by the marshals in the ordinary way are of no value. I would even go further, and say that they are positively misleading and worse than useless, so that were the question to be asked whether the collection of mining statistics by the census authorities should be dropped altogether rather than follow the system hitherto pursued, I would unhesitatingly answer, Let the mining statistics disappear from the census, even if they cost nothing, rather than persist in the old methods of collecting them. I do believe, however, that it would be disgraceful to the country not to have any official reports on the progress of mining industry.

And I see no other way in which to secure at least a decennial representation of the development of our mineral resources than to follow, in the main, the system pursued by me in the collection of the statistics for the "Metallic Wealth of the United States," a copy of which work is furnished herewith for your examination. Let some man, whose character for integrity is beyond suspicion, be placed in charge of the Department of Mining Statistics, and let him visit such districts as his time may allow, sending assistants to other districts, to collect material to be elaborated into one work, the object of which should be to set forth as clearly and concisely as possible the actual condition of the development of our mining districts, giving such statistics as may be obtainable, with estimates where moderately accurate statistics are wanting, and with full particulars as to how these statistics have been obtained, so that their comparative value may be judged of by the person using the material thus collected.

The assistants thus appointed must themselves be experts, and such should be preferred as have already some acquaintance with the regions they are to report upon. It need hardly be added that they must in all cases be men of scientific education, who have absolutely no pecuniary interest in the region they have under their charge. I am aware that there will be difficulties in the way of finding men suited to hold such positions; and one of the difficulties will be that the salaries likely to be offered will not be high enough to induce men of ability to accept such appointments.

The number of persons to be employed in such a work as is here contemplated must depend on the amount appropriated, and on the length of time over which the investigation is to be extended. It seems to me hardly worth while to enter into detailed estimates of the amount of money required, and statements of what could be therewith effected, until there is some assurance that the ideas here thrown out would be adopted as the basis on which the work is to be established. It does seem to me, after much consideration of the subject, that it would be possible for the Census Bureau to present once in ten years a *résumé* of our mining operations for the previous decade which should be a volume of very great interest and value. But I candidly admit that the enterprise is a difficult one, and that it demands for its success that the person placed in charge of the work should be a man of energy, possessing both practical and scientific knowledge of economical geology; and, above all, that he should be one who could not be bought at any price.

In closing this communication, I would ask indulgence for its imperfections. To thoroughly work up the subject would require more time than I have at present at my command. I also desire to be excused for having put myself and my own work rather prominently forward in this connection, and also for having placed myself in the attitude of one finding fault with the work superintended by the gentleman to

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whom this communication is addressed. These difficulties will be got over by your kindly considering this as a private communication made to yourself in the interest of science only. But, at the same time, I authorize you to use it as you may see fit, asking only that you should return it to me in case you find that it does not meet your views, and that, in consequence, it is of no value to you.

I am, sir, with high respect, your obedient servant,

J. D. WHITNEY.

General FRANCIS A. WALKER.

THE EDITOR OF RAILROAD ACCOUNTS.

DEPARTMENT OF THE INTERIOR,
OFFICE OF ACTING COMMISSIONER OF RAILROAD ACCOUNTS.

Washington, D. C., November 1, 1877.

Sir:—Section 1 of the act of Congress entitled "An act to amend the act of March 3, 1875, relating to the accounts of railroads, and for other purposes," approved June 11, 1876, (29 Stat. 219, U. S. Stat. 1876-77, page 112) provides that "the accounts of railroads shall be audited by the Auditor General of the United States, or by such other officer as may be designated by the Secretary of the Interior on the 1st day of November of each year." The act further provides that the Auditor General shall report to the Secretary of the Interior on the 1st day of November of each year, and that the Secretary of the Interior shall transmit the report to the Senate and the House of Representatives. The act also provides that the Auditor General shall keep a record of the accounts of railroads, and that he shall report to the Secretary of the Interior on the 1st day of November of each year, and that the Secretary of the Interior shall transmit the report to the Senate and the House of Representatives.

Enclosed herewith are the accounts of the railroads for the year 1877.

The accounts are in the form of a report, and contain a statement of the receipts and expenditures of the railroads, and a statement of the assets and liabilities of the railroads.

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REPORT OF THE AUDITOR OF RAILROAD ACCOUNTS.

DEPARTMENT OF THE INTERIOR,
OFFICE OF AUDITOR OF RAILROAD ACCOUNTS,
Washington, D. C., November 1, 1878.

SIR: Section 3 of the act of Congress entitled "An act to create an Auditor of Railroad Accounts, and for other purposes," approved June 19, 1878 (chap. 316, p. 169, 2 U. S. Stats., 1877-'78), provides that it shall be the duty of said Auditor "to make an annual report to the Secretary of the Interior, on the first day of November, on the condition of each of said railroad companies, their road, accounts, and affairs, for the fiscal year ending June thirtieth immediately preceding."

In compliance with the above requirement of law, I have the honor to submit the following report in regard to the bureau and its operations since its organization on July 1, 1878, and of the affairs of such of the railroad companies as have complied with the requests of this office under the law, or as have rendered reports of any kind.

ESTABLISHMENT OF THE BUREAU.

In making this the first annual report of the bureau it may not be considered out of place to trace the course of events which seem to have led to its establishment.

In the annual report of the Secretary of the Interior for the fiscal year which ended June 30, 1877, after enumerating many particulars wherein improvement was required in the system of accountability of the Pacific railroad companies and in the reports made by them to the department, you were pleased to use the following language: "For the supervising of the accounts of these railroads, the government directors recommend that a special bureau be established in this department. With this recommendation I fully concur."

The government directors of the Union Pacific Railroad Company, in their report to the Secretary of the Interior for the year ending June 30, 1877, alluding to the subject of reports, expressed themselves as follows:

The law requires certain reports to be made by the company to the government, but has provided no means for the utilization of the reports when made, and the same defect exists as to the reports of the government directors. If the present relations existing between the government and the company are to continue, some remedy should be devised for the defect mentioned. All matters relating to the connection of the government with all of the railroad companies that have received United States bonds in aid of the construction of their respective roads ought to be organized in a special bureau in the Interior Department, in charge of a competent and responsible head. The government directors are aware that the present Secretary of the Interior has considered this definite subject, and probably has arrived at, or doubtless will arrive at, a wise conclusion in general and in detail, and here the subject may be safely left. The government directors can but express satisfaction with the fact that special thought is now given to this important subject. The interests involved are very great, far more so than many others which have been accorded special supervision since the foundation of the government.

The act of Congress approved May 7, 1878 (chap. 96, p. 56, Statute II, 1877-'78), entitled "An act to alter and amend the act entitled 'An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes,' approved July first, eighteen hundred and sixty-two, and also to alter and amend the act of Congress approved July second, eighteen hundred and sixty-four, in amendment of said first-named act," requires "that the net earnings mentioned in said act of eighteen hundred and sixty-two, of said railroad companies, respectively"—the Central Pacific Railroad Company of California and the Union Pacific Railroad Company—"shall be ascertained by deducting from the gross amount of their earnings, respectively, the necessary expenses actually paid within the year, in operating the same and keeping the same in a state of repair, and also the sum paid by them, respectively, within the year, in discharge of interest on their first-mortgage bonds."

To enable this and other provisions of the act to be carried into effect, it was necessary that some officer of the government should be specially charged with the duty of examining the books and accounts of the railroad companies, and of seeing that the law was enforced.

While these recommendations and considerations were more immediately effective in the establishment of this bureau, the following brief review of legislation and events tends to show that the whole system of reports, State and national, is in a measure a necessary outgrowth of the railroad development of the country, and of the liability to abuse of the vast power invested in the control of such extensive interests.

Prior to 1862, the Congress of the United States had granted millions of acres of the public lands to many of the States, as well as the right of way, depot-grounds, and material from adjacent land, to aid in the construction of railroads; but neither money nor bonds of the United States were issued or loaned to railroad companies for the purpose of aiding in the construction of their roads until authorized by the act of Congress approved July 1, 1862, whereby the Union Pacific Railroad Company was incorporated. The grants of land made to several of the States, before and after that time, were subject to certain conditions to be performed by the railroad companies as to the time of completion of the railroads named in the acts, as to the use of the roads by the government, as to the compensation to be paid by the government for transportation of mails, troops, and supplies, and as to other matters, without any uniformity in the legislation, or provision for carrying the laws into effect.

The act of Congress approved July 1, 1862 (U. S. Stat. at L., p. 489), by which the Union Pacific Railroad Company was chartered, and that and other railroad companies named therein received loans of money and bonds of the United States, and grants of land, to aid in the construction of their respective railroads, and valuable franchises, provided that certain annual reports should be made to the Secretary of the Treasury; but as the act did not clearly designate or specify in many respects what was to be reported, and did not attach any penalty for non-compliance on the part of the railroad companies, it is not unreasonable to infer that such provision was intended to be temporary, to be operative only during the period of construction, and to be altered or amended, under the power reserved in section eighteen of the act, as time, experience, the increase of business, the safety of transportation, and the security of it at all times to the government, the obligations and finan-

cial situation of the companies, or the public interest and welfare might require.

The act of Congress approved July 2, 1864 (U. S. Stat. at L., p. 356), passed in amendment of the act of 1862, did not alter or amend the section relative to reports, but in that respect merely increased the number of government directors to five, and specified more particularly what they were required to do.

The act of Congress approved July 2, 1864 (U. S. Stat. at L., p. 365), by which the Northern Pacific Railroad Company was chartered, provides "that the directors of said company shall make an annual report of their proceedings and expenditures, verified by the affidavits of the president and at least six of the directors," but, by some omission, does not state *when* or *to whom* the reports are to be made.

The act of Congress approved July 27, 1866 (14 U. S. Stat. at L., p. 292), by which the Atlantic and Pacific Railroad Company was chartered, provides "that the directors of said company shall make and publish an annual report of their proceedings and expenditures, verified by the affidavits of the president and at least six of the directors, a copy of which shall be deposited in the office of said Secretary of the Interior." The peculiarity of this legislation is, that for the first time reports were required to be made *to the Secretary of the Interior*, while, at the same time, other subsidized Pacific Railroad Companies were required to render their reports annually *to the Secretary of the Treasury*.

Nearly two years after the passage of the last-named act, an important step was taken toward systematizing the business of reports from railroad companies. The act of Congress approved June 25, 1868 (15 U. S. Stat. at L., p. 79), entitled "An act relative to filing reports of railroad companies," altered the provisions of the act of July 1, 1862, and the other acts heretofore enumerated, by requiring the annual reports of all these Pacific Railroad Companies to be made "to the Secretary of the Interior on or before the first day of October of each year," to furnish "full and specific information upon the several points mentioned in the twentieth section of the said act of eighteen hundred and sixty-two," and that "there shall also be furnished annually to the Secretary of the Interior all reports of engineers, superintendents, or other officers who make annual reports to any of said railroad companies"; the act also provided "that the Northern Pacific Railroad Company, the Atlantic and Pacific Railroad Company, and the Southern Pacific Railroad Company shall make reports to the Secretary of the Interior, on or before the first of October of each year, as are required to be made by the Union Pacific Railroad and branches, under the provisions of the first section of this act"; and as a penalty for non-compliance the act provided that "the issue of bonds or patents to the company in default shall be suspended until the requirements of this act shall be complied with by such company." The fact of the passage of this act, embodying and bringing into some kind of order previous irregular legislation on the subject, together with the fact of compliance with its requirements on the part of the companies named therein—meager and negligent as it was—must be considered as confirmatory of the view that the requirements of the original acts, in this respect, were intended to be temporary and to be altered or amended as Congress might from time to time determine.

Nearly three years after the passage of the act just alluded to, and the systemization in some degree of the method of reports, special legislation was had in regard to another Pacific railroad, without reference, however, to any particular order or system in the requirement of reports.

The act of Congress approved March 3, 1871 (16 U. S. Stat. at L., p. 573), by which the Texas Pacific Railroad Company was chartered, provides "that the president of the company shall annually, by the first day of July, make a report and file it with the Secretary of the Interior, which report shall be under oath, exhibiting the financial situation of the company, the amount of money received and expended, and the number of miles of road constructed each year," and other matters similar to those required from the other Pacific Railroad Companies under the act of June 25, 1868. While the other railroad companies were required by law to report to the department annually, *by the 1st day of October*, the Texas Pacific Railroad Company is required to do so *by the 1st day of July*. This was done, doubtless, to accommodate the company, whose fiscal year ended on the last day of April, as the company requested permission from the Secretary of the Interior, in 1873, to make up their report so as to conform with that of the president of the company to the stockholders. The law requires the president of the company to report by the 1st day of July, at which time it is evidently impossible to report the operations for the year ending on the 30th of June; but the decision of the department, by letter of June 13, 1873, required the company to report by fiscal years ending June 30, and the company has been so reporting since that time, although their fiscal year has in the mean time been changed to the 31st of May.

On December 2, 1872, a resolution passed the House of Representatives, under which a special committee was appointed, composed of the Hon. Luke P. Poland, chairman, and the Hons. N. P. Banks, George W. McCrary, William E. Niblack, and William M. Merrick, to investigate certain matters connected with the Credit Mobilier. On January 6, 1873, another resolution passed the House, under which a select committee was appointed, composed of the Hon. Jeremiah M. Wilson, chairman, and the Hons. Samuel Shellabarger, George F. Hoar, H. W. Slocum, and Thomas Swann, to make an inquiry in relation to the affairs of the Union Pacific Railroad Company, the Credit Mobilier of America, and other matters connected therewith. These investigations, the facts exhibited in the testimony, the conclusions arrived at by the committees as embodied in their respective reports (Nos. 77 and 78, House of Representatives, Forty-second Congress, third session), and the expulsion of Messrs. Oakes Ames and James Brooks from the House of Representatives, mark an epoch in the railroad history of the country.

While the more immediate result of these developments was prompt and vigorous legislation by Congress in regard to the railroad companies concerned, a far more important and wide-spread result was the rapid growth of a strong popular feeling against the granting of any further subsidies in money, lands, or bonds to transportation or other public companies, and that railroad corporations generally, and interstate and subsidized railroads in particular, should be made amenable to supervision, the former to that of the State and the latter to that of the national government. In fact this feeling became so intense, especially in the Western and Northwestern States, as to call for governmental regulation of rates for freight and passenger transportation. The rise of the Granger associations, the legislation obtained by them in many of the States, the suits instituted against the railroad companies affected thereby, and the final decision of the Supreme Court of the United States, by which it is held that railroad corporations and their business are constitutionally subject to legislative control, have become matters of history.

On March 3, 1873, the act of Congress was approved (17 U. S. Stat. at Large, p. 508) by which the Secretary of the Treasury is directed to

withhold all payments on account of freights, or transportation of any kind, to the amount of interest paid by the United States upon the bonds issued to any such company and not reimbursed, together with the five per cent. of net earnings due and unapplied; and the companies are authorized to bring suit therefor in the Court of Claims, with right of appeal to the Supreme Court, both of which courts are directed to give such causes precedence of all other business; by the same act the Attorney-General was required to institute a suit in equity against the Union Pacific Railroad Company and other persons for the recovery of moneys and property alleged to have been wrongfully and illegally diverted from the uses and purposes for which they should have been expended; by the same act the books, records, correspondence, and all other documents of the Union Pacific Railroad Company are required to be at all times open to inspection by the Secretary of the Treasury, or such persons as he may delegate for that purpose; and finally, by the same act, other requirements are made in regard to dividends, stock, mortgages, directors, and officers, with certain penalties for non-compliance, and the proper circuit court of the United States is empowered with jurisdiction to hear and determine all cases of mandamus to compel the Union Pacific Railroad Company to operate its road as required by law. This act still remains in force, and has well served the purpose for which it was enacted; but some portions of it should be repealed as soon as the Supreme Court has decided the causes now pending between these companies and the government.

The Army appropriation act approved June 16, 1874 (18 U. S. Stat. at Large, p. 74), contains the following restriction in regard to land-grant railroads:

That no part of the money appropriated by this act shall be paid to any railroad company for the transportation of any property or troops of the United States over any railroad which, in whole or in part, was constructed by the aid of a grant of public land on the condition that such railroad should be "a public highway for the use of the Government of the United States, free from toll or other charge," or upon any other conditions for the use of such road for such transportation; nor shall any allowance be made out of any money appropriated by this act for the transportation of officers of the Army over any such road when on duty and under orders as a military officer of the United States. But nothing herein contained shall be construed as preventing any such railroad from bringing a suit in the Court of Claims for the charges for such transportation, and recovering for the same, if found entitled thereto by virtue of the laws in force prior to the passage of this act.

This restriction was made still more absolute by a provision inserted in the Army appropriation act approved March 3, 1875 (18 U. S. Stat. at Large, p. 453), by which it was enacted:

That no money shall hereafter be paid to any railroad company for the transportation of any property or troops of the United States over any railroad which, in whole or in part, was constructed by the aid of a grant of public land on the condition that such railroad should be a public highway for the use of the Government of the United States, free from toll or other charge, or upon any other conditions for the use of such road for such transportation; nor shall any allowance be made for the transportation of officers of the Army over any such road when on duty and under orders as military officers of the United States. But nothing herein contained shall be construed as preventing any such railroad from bringing a suit in the Court of Claims for the charges for such transportation, and recovering for the same, if found entitled thereto by virtue of the laws in force prior to the passage of this act: *Provided*, That the claim for such charges shall not have been barred by the statute of limitations at the time of bringing the suit, and either party shall have the power of appeal to the Supreme Court of the United States: *And provided further*, That the foregoing provision shall not apply for the current fiscal year, nor thereafter, to roads where the sole condition of transportation is that the company shall not charge the government higher rates than they do individuals for like transportation, and when the Quartermaster-General shall be satisfied that this condition has been faithfully complied with.

These acts are still in force, and have well served the purpose for which they were passed—the protection of the government in its rights. As soon, however, as the Supreme Court shall have decided the important questions now pending in relation to the land-grant railroads there appears to be no reason why these laws should not be repealed, in order that the railroad companies may be enabled to receive their payment promptly for services performed for the government without the tedious and expensive resort to legal proceedings necessitated thereby.

During the Forty-third, Forty-fourth, and Forty-fifth Congresses much important legislation in regard to the Pacific railroads, other land-grant railroads, and railroad transportation in general was had and proposed. On March 26, 1874, bill No. 1385, “to regulate commerce by railroad among the several States,” was passed by the House of Representatives. The bill was designed to regulate transportation rates through a board of nine railroad commissioners, who were to be empowered to administer oaths, take testimony, send for persons and papers, and require books and records to be produced by their own process, served by marshals of the United States, with penalties for non-compliance; and in order to ascertain what were reasonable rates of toll or compensation, a bureau of railway statistics was authorized to be opened and kept in the Department of the Interior, to which all railroad companies were to make returns. This bill did not pass the Senate.

On April 14, 1874, a bill “to establish a national railroad bureau and for the general government of railroads,” No. 698, was introduced in the Senate. This bill was designed to obtain statistical information in regard to railroads and to supervise their operations, through a board of three railroad commissioners, with suitable offices in the city of Washington, and the necessary clerical force. The commissioners were to prescribe a system of accounts and returns to be made by all railroads in the United States, to prepare tables and abstracts of statistics, to publish annually a book containing full information in regard to every railroad in the United States, and sectional and general railroad maps. The fiscal year of all railroads was to be required to end on June 30; the directors of each railroad were to be required to make an annual report under oath, before the first Wednesday of September, of their doings under their charters, upon forms prescribed and furnished by the board, with a penalty for non-compliance. The commissioners were to prescribe what should constitute “operating expenses,” to compel any railroad company whose stock and debt largely exceeded the actual cost of construction and equipment to reduce its liabilities, and to regulate its tariff in accordance with such reduction, and to report to Congress, through the President, what legislation was necessary to carry out the objects for which the commission was created. No action was taken by Congress on this bill.

On June 20, 1874, the act of Congress (18 U. S. Stat. at L., p. 11) was approved, by which the officers and agents of the companies authorized to construct the Pacific railroads under the acts of July 1, 1862, and July 2, 1864, who refuse to operate and use the roads under their control as one continuous line, without any discrimination of any kind, are deemed guilty of a misdemeanor and liable to fine and imprisonment. It is also provided in the act—

That for all the purposes of said act [that of July 1, 1862], and of the acts amendatory thereof, the railway of the Denver Pacific Railway and Telegraph Company shall be deemed and taken to be a part and extension of the road of the Kansas Pacific Railroad to the point of junction thereof with the road of the Union Pacific Railroad Company at Cheyenne, as provided in the act of March third, eighteen hundred and sixty-nine.

This act is still in force, and seems to require the Denver Pacific Railway Company to apply five per cent. of their net earnings on the account of the Kansas Pacific Railway Company's indebtedness to the government.

The act of Congress approved June 22, 1874 (18 U. S. Stat. at L., p. 200), directs the Secretary of the Treasury to require payment of all sums of money due or to become due the United States for the 5 per centum of the net earnings provided for by the act of 1862; and in case of non-payment of the same within sixty days after demand therefor, the Secretary of the Treasury is required to certify that fact to the Attorney-General for the institution of suits and proceedings necessary to collect the same. None of the suits instituted under this act have yet been determined, but it is expected that the Supreme Court will decide the case of *The United States vs. The Union Pacific Railroad Company* during its present term.

During the first session of the Forty-fourth Congress a bill was introduced "To amend the act entitled 'An act relative to filing reports of railroad companies,' approved June twenty-fifth, eighteen hundred and sixty-eight," by which it was proposed that the said corporations should annually make and *file with the Secretary of the Treasury* a full and true statement for the year ending June 30th prior thereto, sworn to by the president and treasurer of each corporation, showing all of their operations, receipts, expenditures, &c., in detail, upon blanks to be prepared and forwarded to the companies, with penalties and forfeitures for non-compliance. This bill, if passed, would have compelled the railroad companies to report annually *to two departments of the government*. The bill passed the House of Representatives March 1, 1876, but did not pass the Senate.

Among the important matters relating to railroads considered by the Forty-fourth Congress was the question of the indebtedness of the Pacific railroad companies to the government, and what legislation, if any, was necessary and just to secure indemnity to the United States, whether by sinking-funds to be established, or otherwise. The judiciary committees of both the Senate and the House of Representatives from time to time made careful inquiry and voluminous report upon this subject, in the preparation of which it was apparent that neither the executive departments nor Congress were in possession of such specific information in regard to the affairs of the companies as they should have been if the laws had been more explicit and the kind of reports to be rendered to the government had been determined. In House Report No. 440 (44th Congress, first session), submitted by the Hon. Wm. Lawrence, invaluable as the report is for the full and explicit information concerning these railroads therein given, it is in many instances acknowledged that correct statements of facts could not be obtained from the executive departments of the government. After obtaining, by the exercise of great labor and patience, all the facts necessary to an intelligent determination of the question submitted to them, and after hearing elaborate arguments by the able counsel employed by the Central Pacific and Union Pacific Railroad Companies against the proposition for a sinking-fund, the committee, after a fair and exhaustive argument, came to the conclusion that Congress had the power over the Pacific Railroad corporations to enable it to alter and amend the acts of 1862 and 1864, so as to provide a proper sinking-fund to pay at maturity the principal and interest of the bonds of the United States issued to the said companies, respectively, and also that it was both necessary and just to create such a sinking-fund. The

committee submitted a bill to accomplish the purpose of their report, but it did not become law.

A number of propositions were made by the Central and Union Pacific Railroad Companies at that time and subsequently, both to the executive departments and to Congress; and sundry bills were introduced at different times and referred to the Committees on the Judiciary and to the Committees on Railroads of the Senate and House of Representatives, without result other than investigation and report.

On March 4, 1878, Forty-fifth Congress, second session, Senator A. G. Thurman submitted Report No. 111 from the Senate Committee on the Judiciary, to accompany bill S. 15, as amended, by which it was shown, first, that the Central Pacific and Union Pacific Railroad Companies were fully able to meet the requirements of a sinking-fund for the payment of their indebtedness to the government; second, that one-half of the compensation for services rendered for the government, added to the amount of five per cent. of their annual net earnings, was insufficient to reimburse the government, or to provide the necessary requirements for a sinking-fund for that purpose; third, that the decisions of the Supreme Court in recent cases completely removed all doubt as to the power of Congress in the premises—whether to create a sinking-fund, or to alter, amend, or repeal the act of incorporation, and the acts amendatory thereof. After lengthy debate and some amendments, the bill passed the Senate April 9, and the House of Representatives April 24, 1878, and became a law by the approval of the President May 7, 1878 (Chap. 96, U. S. Stats., II, of 1877-78, p. 56).

On April 17, 1878, the Hon. Wm. W. Rice, from the Committee on Pacific Railroads of the House of Representatives, submitted Report No. 620, to accompany bill H. R. 4399, "to establish a board of Pacific Railroad Commissioners," as a substitute for several bills introduced to relieve the complaints of the branch roads of the Union Pacific system against the Union Pacific Railroad Company of a violation of the relations established between them by Congress, of unjust discriminations, and of illegal and oppressive treatment. The bill provided for the appointment of a permanent board of three commissioners; said board of commissioners to have general supervision of the Pacific Railroads; to have an office in the city of Omaha; to examine the roads, books, and papers of the companies; to inform themselves of the rates and charges for transportation of freight and passengers; to ascertain whether the companies furnish safe and convenient accommodations at reasonable and proper rates, and perform and discharge their duties to the government, the public, and each other, in accordance with law; to establish rules and regulations to govern the operation and management of the roads, with power to issue subpoenas for witnesses and for the production of books and papers, and to administer oaths at any hearing or examination; to require reports from said corporations at such time and in such manner as the commissioners shall direct, and to make an annual report to Congress. This bill was known as the "pro-rate bill," and was not taken up on a motion to suspend the rules.

On June 14, 1878, Senate bill No. 1337, creating a board to be known as "the Pacific Railroad Commissioners," was considered as in Committee of the Whole of the Senate. The bill proposed to constitute a special board of three commissioners to serve until January 1, 1879, to ascertain certain facts in regard to the construction, property, earnings, operating expenses, transportation rates, terminal facilities, and any other matters to aid in establishing equitable rates over said roads or any portion thereof; to make a report to the Secretary of the Interior on Decem-

ber 1, 1878, of their proceedings and doings and the facts ascertained by them, together with suggestions and recommendations, and to state what, in their opinion, would be an equitable and fair tariff of rates or division of earnings between the companies for the transportation of freight and passengers over the whole length, or any parts thereof, of any two or more of said roads. This bill was passed by the Senate, but was not reached in the business of the House before adjournment.

A supplemental report will be made by this office on December 1, 1878, bearing upon this and other questions relating to those companies.

On June 14, 1878, Senate bill No. 1,368, in relation to the Kansas Pacific Railway Company, and for the establishment of a sinking-fund similar to that established for the Central Pacific and Union Pacific Railroad Companies, was passed by the Senate. The only points of difference between this bill and that passed for the Central and Union Pacific Companies were the necessary alterations in names and amounts, and the following amendment, offered by the honorable Senator G. F. Hoar, of Massachusetts, viz:

The compensation of the government directors appointed for the Union Pacific Railroad, by virtue of the provisions of the act to which this is an amendment, shall be fixed at \$10 a day while absent from home engaged in their duties as directors, in addition to their actual traveling expenses, the account of their services to be rendered to and approved by the Secretary of the Interior before such payment. No government director shall hereafter receive any compensation from said company, except as aforesaid, for any service rendered to it, or make or be interested in any contract with the said company whereby he shall receive any emolument or advantage whatever.

The bill was not reached in the House prior to adjournment.

The necessity for further information, before legislation can be had in regard to the establishment of sinking-funds for the payment of the indebtedness to the United States of the Sioux City and Pacific and the Central Branch Union Pacific Railroad Companies, and for information bearing upon the question of "pro-rate and continuous operation" of the Pacific Railroads, and other matters relating to the companies; the existence of the pending suits between these railroad companies and the United States, in regard to the questions of "completion of road," "net earnings," and "compensation for carrying the mail," as well as others that may arise in regard to the disposal of their lands; and the questions at issue in the suit of the Atchison, Topeka and Santa Fé Railroad Company *vs.* The United States, in regard to what is "a fair deduction for the use of a railroad as a public highway by the United States free of toll or other charge," are all of them matters in which the bureau has been and is expected to be of great service to the government; and it was undoubtedly with this view, among others, that the act creating it was passed.

THE ACT CREATING AN AUDITOR OF RAILROAD ACCOUNTS.

A copy of the act will be found in the appendix (A) annexed to this report.

The following brief synopsis will serve to explain its operation and effect:

Section 1 repeals the laws previously in force in regard to reports required to be made by railroad companies to the government, excepting only that relating to the Texas and Pacific Railway Company—the law of 1871, requiring reports from that company, being still in force—and the sections of the law incorporating the Northern Pacific and the Atlantic and Pacific Railroad Companies.

Section 2 provides for the organization of the bureau and the necessary appropriations.

Section 3 specifies the duties of the Auditor, which are, among other things, to prescribe a system of reports, to examine the books and accounts of each railroad company, to see that the laws relating to the railroad companies are enforced, and to report annually to the Secretary of the Interior; and describes, by geographical limits, the railroad companies embraced in the act.

Section 4 enacts that the railroad companies described in the previous section shall make such reports as the Auditor may require from time to time, and that they shall submit their books and records to his inspection.

Section 5 fixes the penalty for neglect or refusal to comply with the requirements of the law at not less than \$1,000 nor more than \$5,000 for each case of neglect or refusal, to be forfeited for the use and benefit of the United States, and to be recovered by the Attorney-General of the United States.

Section 6 applies the provisions of the act to all persons or companies into whose hands either of said railroads may lawfully come.

Section 7 names the day on which the act takes effect as July 1, 1878.

In its general features, the act seems to have the sanction of the most intelligent and advanced thought in regard to "the railroad problem," which may be summarized briefly as (1) publicity as to the condition and affairs of railroad companies; (2) certification as to such condition after examination by competent government commissioners or auditors, followed by (3) stated and correct reports uniform in character and as to time, and (4) such wise and considerate legislation, based upon the information so obtained, as shall allow the great natural law, "the survival of the fittest," to govern. In this respect, the State or national government would but take the place of a committee of stockholders or creditors often appointed to inquire into the affairs and conditions of a railroad company—the Auditor or commissioner of the government becoming a kind of permanent committee for such purpose—the end served being the true interests of the company itself, and the general public welfare. This is undoubtedly the direction in which governmental control of railroad companies is tending, as it is being realized, gradually, that the regulation of rates for transportation by legislation must necessarily operate unequally and disastrously on different railroads and in different sections. Each railroad company must in this respect be a law unto itself; its rates must be regulated by its own exact elements entering into the cost of transportation, varying greatly on every road, as to the amount of capital invested, the cost of construction and equipment, the rate of interest paid for money, the volume and kind of business done, the expenses of operating and keeping the road in repair, and last, but not least, the quality of its management. It is for the general welfare that railroad property shall be reasonably productive and remunerative, and that capital so invested shall not be sunk, wasted, or rendered unprofitable. "Combination," so called, or *co-operation*, as the reverse of vicious "competition," legally and properly supervised as a means to such end, is nothing more or less than practical, strong "common sense."

THE RAILROADS INCLUDED IN THE ACT.

Whatever may have been the design of the bill as introduced, the act itself as passed describes by geographical lines the railroads whose proprietors or lawful owners are required to render reports, in the follow-

ing language, viz: "The railroad companies whose roads are in whole or in part west, north, or south of the Missouri River, and to which the United States have granted any loan of credit or subsidy in bonds or lands."

The two questions involved in this description are, first, where is the geographical boundary-line to be drawn? and, second, within the limits of such boundary-line, to what railroad companies have the United States granted any loan of credit or subsidy in bonds or lands?

As to the first question, a careful calculation, made by Mr. C. Roeser, principal draughtsman in the General Land Office, shows that the latitude and longitude of the confluence of the Mississippi and Missouri Rivers, the point from which it is decided to draw the lines, is as follows: Latitude, 38 degrees 51 minutes and 23 seconds north; longitude, 90 degrees 8 minutes and 8 seconds west of Greenwich.

A line drawn north and south from this point intersects the following railroads, viz: Wisconsin Central; La Crosse and Milwaukee; Saint Louis, Iron Mountain and Southern; Cairo and Fulton; Memphis and Little Rock; New Orleans, Baton Rouge and Vicksburg; and Morgan's Louisiana and Texas. North or south of a line drawn west from the same point, are the remainder of the roads named in the list marked B in the appendix.

As to the second question, a careful examination of the statutes under which the grants were made by the United States shows that to the three classes of railroads into which they are divided in Appendix B, bonds or lands have been granted, either to the original companies as named therein, to companies or persons into whose hands the said railroads named in the statutes have lawfully come, or to the States named in the statutes for the sole use and benefit of the line of railroad designated therein. The only point upon which any doubt can arise, is whether a grant of land to a State solely to aid in the construction of a railroad named and specified in the act making the grant, is a subsidy in lands as contemplated in the act creating this bureau. It is found that the certificates issued by the General Land Office for the land granted in all such cases name the railroad for whose use it is to be applied, and in some cases does not even name the State. The construction put upon this clause of the act is, that such grant is a subsidy as contemplated by the act. Railroad corporations generally have so much litigation of one kind or another that it becomes a regular part of their business to go to law, and railroad men being, as a class, naturally rugged and combative, it was not to be expected that the land-grant railroad companies would quietly submit to the requirements of the act. The main point made in objection is that the grant to a State for a railroad specified is not a grant to the railroad company. This has been deemed somewhat in the nature of a quibble or evasion, inasmuch as the title vests in no one but the railroad company, and the final ownership must be through the railroad company and the railroad company only.

List C in the appendix gives the reference to the acts of Congress relating to each railroad, the condition upon which the grants were made as to transportation for the government, the amount of bonds issued to each company, the estimated quantity of land granted, and the number of acres of land certified to June 30, 1878. (See, also, map accompanying this report.)

THE SYSTEM OF REPORTS ADOPTED.

In prescribing the system of reports for the railroad companies to render to this office, the following considerations have governed:

1. That the *reports should be practical and simple*, stating facts, and, whenever possible, by mere transcript from the books of the company or the regularly-prepared statements of its officers. 2. That the *number and frequency* of reports required *should be reasonable*, and only such as the directory of the company might require for its own information. 3. That *the matters reported should be useful and necessary*, not only to the government, but for the proper and economical management of a railroad. By this means, it was considered that, while the government may have no choice of method or system of bookkeeping to be used by a railroad company, so long as the plain and elementary principle of *properly debiting and crediting every transaction as it occurs is practiced, whether relating to the liability or the expenses of the company*, the officers would, of their own will, avail themselves of every opportunity to improve their system in such a way as they might judge best, but in any case, so as to enable them to furnish the information required by law.

The forms adopted may be classified as follows: first, those relating to "ownership and control"; second, those relating to "financial condition"; third, those relating to "revenue and statistics thereof"; and, fourth, those relating to "expenditures and statistics thereof." (See list D in the appendix.)

Forms Nos. 3 and 11 relate to the ownership of a railroad company, embracing facts as to its organization, officers, capital stock, &c. Reports are required on these forms semi-annually, or as often as the transfer-books are closed, prior to the payment of a dividend.

Forms Nos. 1, 10, 12, 13, 14, 16, 17, and 18 relate to the financial condition of a railroad company, its liabilities and assets. The proper showing of the financial situation, or condition, of a corporation is, perhaps, one of the most vital elements in its permanent prosperity. For this purpose, probably every railroad company in the United States has a trial balance taken from its general ledger once a month, or at stated intervals more or less frequent; if any company does not require this, it is at the mercy of its officials, and the proper conduct of its affairs is next to impossible. The books of the Treasury of the United States are trial balanced four times a month; and while its receipts and expenditures during the eighteen years from July 1, 1859, to June 30, 1877, aggregated the enormous sum of \$29,487,254,043.04, the Treasurer's books balanced to a cent, and every cent of the balance was accounted for. The question of a reasonable expenditure for book-keeping should be a minor one; every proper safeguard is a legitimate expense. It would have been a wise economy, probably, for the Manhattan Savings Institution to have expended a few hundred dollars on a time-lock for their vault. The actual showing of both sides of the general ledger is required upon Form 1, monthly; statistical information as to assets on the other forms, semi-annually.

Forms Nos. 2, 4, 15, and 19 relate to revenue and the statistics connected therewith. Forms Nos. 5, 6, 7, 8, 9, and 15 relate to operating and other expenditures and statistics relative thereto. Every railroad company should undoubtedly have *monthly* returns of its earnings and expenses in detail; some companies have summarized *daily* reports and fuller *weekly* reports. Without this important information, a company could hardly be expected to live alongside its more progressive competitors. Daily, weekly, and monthly, as well as continuous and yearly, comparisons are necessary to a vigorous and economical management.

The forms adopted are not supposed to be perfect. They will be improved from time to time as experience and necessity may require.

THE ACT ESTABLISHING A SINKING-FUND FOR THE PAYMENT OF THE BONDS OF THE CENTRAL PACIFIC AND UNION PACIFIC RAILROAD COMPANIES.

A copy of this act is given in the appendix, marked E.

Section 1 defines how net earnings shall be ascertained after June 30, 1878. The information upon the forms upon which reports are required to be made to this office will enable it to determine promptly the amount of these net earnings.

Section 2 requires that the whole amount of compensation due said companies for services rendered for the government shall be retained by the United States, one-half to be applied (covered into the Treasury) on account of interest paid and to be paid, and the other half to be turned into the sinking-fund (covered into the Treasury on account of said sinking-fund). If this is done, it seems to conflict with the provisions of section four, by which the one-half of the compensation for the sinking-fund is required to be carried to the credit of said fund on the 1st day of February in each year. But it is unreasonable to suppose that the Secretary of the Treasury is to be required to hold these moneys month by month, as they accumulate during the year, without applying them to the use of the said sinking-fund.

Section 3 establishes a sinking-fund in the Treasury of the United States, which is to be invested by the Secretary of the Treasury in bonds of the United States, and the semi-annual income thereof shall be in like manner from time to time invested. By this it seems to be enacted, first, that the moneys constituting the sinking-fund shall be covered and remain in the Treasury; that is, shall become part of the Treasurer's general account; and, second, that they are appropriated and subject to the warrant of the Secretary of the Treasury for the purpose of investing them in bonds of the United States, which bonds are to be held by the Secretary of the Treasury, stamped so as to show that they belong to said fund. The question as to the premium paid on bonds purchased for the sinking-fund being a charge to said fund or not, is an open one; but in view of the fact that the companies themselves charge the premium they pay on similar investments to their general income account, it is reasonable to consider it a proper charge to the sinking-fund account. It may be a matter for consideration, however, whether it would not be better, more equitable, for the sinking-fund to be invested in the first-mortgage bonds of the companies, inasmuch as they are first to be paid from its accumulation.

Section 4 provides that each company shall on the 1st day of February in each year pay into the Treasury, to the credit of said sinking-fund, enough money to make the aggregate of the payments to the government and the payments to the sinking-fund amount to 25 per cent. of the net earnings of each company, ascertained and defined under the law, for the year ending on the 31st day of December next preceding.

Section 5 authorizes the Secretary of the Treasury to remit for any current year so much of the money required to be paid into the sinking-fund to make 25 per cent. of net earnings as may be shown, by either of the companies, to have been required to pay interest upon the obligations of the company in respect of which there may exist a lien paramount to that of the United States.

Section 6 enacts that no dividends shall be voted, made, or paid at any time when the company is in default as to the sinking-fund, the 5 per cent. of net earnings, or of interest upon any debt the lien of which is paramount to that of the United States, with penalty by fine not exceed-

ing \$10,000 and imprisonment not exceeding one year on every officer, person, or stockholder who shall knowingly vote, declare, make, or pay such dividend.

Sections 7 and 8 provide that the sinking-fund and its accumulations shall be held for the protection, security, and benefit of the lawful and just holders of any mortgage debts lawfully paramount to the rights of the United States according to the principles of equity.

Section 9 enacts that the indebtednesses of the companies to the United States are a lien upon all their property, estate, rights, and franchises, subject to any lawfully prior and paramount mortgage, lien, or claim thereon, but does not prevent them from disposing of their property in the ordinary and lawful course of current business in good faith and for valuable consideration.

Section 10 makes it the duty of the Attorney-General of the United States to enforce, by proper proceeding, all the rights of the United States under this or any other act, and makes it the duty of the court to determine the very right of the matter in any suit without regard to matters of form.

Section 11 enacts that a failure to comply with the requirements of any acts of Congress on the part of each of the companies named shall operate as a forfeiture of all their rights, privileges, grants, and franchises derived or obtained from the United States.

Section 12 reserves the right to alter, amend, or repeal this and the other acts named, as justice or the public welfare may, in the opinion of Congress, require.

The practical operation of the sinking-fund act as to the Union Pacific Railroad Company, for the year ending June 30, 1878, supposing the act to have been operative during that fiscal year, and premising that the compensation for services, as claimed by the company, had been promptly settled by the accounting-officers of the Treasury Department, would have produced the following result:

EARNINGS.

Passenger department:	
Commercial	\$2, 965, 774 24
Government	293, 449 18
United States mail	596, 775 00
Express	474, 707 08
Freight department:	
Commercial	6, 386, 653 56
Government	341, 909 68
Company	819, 755 32
Missouri River bridge	519, 226 56
Car-service	27, 786 65
Rent of buildings	23, 186 46
Miscellaneous	334, 917 49
Total earnings	12, 784, 141 22

OPERATING AND OTHER EXPENSES.

Conducting transportation	\$898, 007 15
Motive power	1, 661, 840 70
Maintenance of cars	491, 670 86
Maintenance of way	\$1, 797, 036 81
Less difference in value between steel rails laid in place of iron, estimated as 10,000 tons, at \$10 per ton	100, 000 00
	1, 697, 036 81

General expenses	171,702 20	
Taxes	294,003 94	
Eastern expenses	122,890 24	
Car-service	34,270 86	
Missouri River bridge expenses	*366,115 05	
Total expenses		5,737,537 81
Ordinary net earnings		7,046,603 41
Deduct interest on first-mortgage bonds	\$1,634,940 00	
Premium on gold for same	56,486 02	
		1,691,426 02
Net earnings as defined in the act		5,355,177 39

REQUIREMENTS UNDER THE ACT.

One-half of United States passenger earnings retained by United States.	\$146,724 59
One-half of United States passenger earnings retained for sinking-fund.	146,724 59
One-half of United States mail earnings retained by United States....	298,387 50
One-half of United States mail earnings retained for sinking-fund	298,387 50
One-half of United States freight earnings retained by United States.	170,954 84
One-half of United States freight earnings retained for sinking-fund..	170,954 84
Payment required from the company in cash on account of 5 per cent. of net earnings.....	106,660 49
Of the \$850,000 additional payment to be made by the company, no part is required	
Total (being 25 per cent. of net earnings).....	1,338,794 35

REQUIREMENTS FOR SINKING-FUND.

One-half of United States transportation as above.....	\$616,066 93
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REQUIREMENTS FOR THE UNITED STATES.

One-half of United States transportation as above.....	\$616,066 93
Cash payment on account of 5 per cent. of net earnings as above	106,660 49
	722,727 42

AT THE DISPOSAL OF THE COMPANY.

Seventy-five per cent. of the net earnings	4,016,383 04
From this the following payments were made, viz:	
Interest on land-grant bonds.....	\$513,205 00
Interest on sinking-fund bonds.....	1,129,336 00
Interest on bridge bonds.....	184,581 26
Dividends, 6 per cent. on par value of capital stock, \$36,745,000	2,204,700 00
	4,031,822 26
Net deficit for the year	15,439 22

With the exception of the exact amount to be deducted from "maintenance of way" on account of betterments by steel rails being substituted for iron, and the amount of freight on materials used in new construction—probably not in excess of \$10,000—to be deducted from "company freight," the above statement is a correct one.

Under the laws in force to June 30, 1878, the settlement of this mat-

* This item was increased over the expenses of the previous year by the cost of replacing two spans carried away by a tornado August 25, 1877, amounting to \$61,699.99

ter between the Union Pacific Railroad Company and the United States will be probably as follows, viz:

One-half of transportation retained.....	\$616,066 93
Five per cent. of ordinary net earnings retained out of the other half of transportation	352,330 17
Total amount paid into the Treasury applicable on account of the principal and interest of the subsidy bonds.....	968,397 10
Remainder of one-half of transportation payable to the company.....	263,736 76
Total amount of transportation performed for the government...	1,232,133 86

The printed reports of the Central Pacific Railroad Company to their stockholders and the written report rendered to this department under the law which has been repealed do not furnish the information necessary to make a similar statement as to that company, and no reports have been made to this office.

THE OPERATIONS OF THE BUREAU.

On the 1st day of July, 1878, a copy of the act creating this bureau and a copy of the sinking-fund act were forwarded to the presidents of the Union Pacific and Central Pacific Railroad Companies, and request made for compliance with the requirements of the same.

Copies of the act creating the bureau were afterward forwarded to the president, receivers, or other proper officers of the remainder of the companies named in the list marked B in the appendix, and request made for compliance with its requirements.

At as early a day as possible after preparation and printing of the blank forms adopted upon which reports are required to be made by the companies, a proper supply of each of the forms named in list D of the appendix was forwarded to the business address of the president or chief officer of each company, accompanied by a letter of request suited to each case.

Four months only having elapsed since the organization of the bureau, and much time having been taken up by correspondence between the companies and the bureau (many of them having referred the requests of this office to their law officers for consideration and report), the information furnished upon the forms prepared has necessarily been delayed. Some of the companies included in the act make no printed or even written reports to their stockholders, and the reports of other companies which do so are bare of the requisite information, so that at this comparatively early day in the existence of the bureau it is next to impossible to give that exact and complete statement of the affairs of the companies affected which it is ultimately designed to do.

The information received directly from the companies is tabulated in the appendix under appropriate heads. The incompleteness of reports renders comment or discussion in regard to the bearing of the information furnished upon the interests of the government out of the question at this time.

Much patience and forbearance has been exercised, in the hope that the companies affected would comply with the law without resort being had to the penalties prescribed therein, and that they would realize the fact that a medium of intelligent communication with the government and the people, by which a true statement of their affairs (their adversity or prosperity) could be made, was all that was required in order that they might be treated with fairness and justice by the law-making power.

THE RAILROAD COMPANIES TO WHICH SUBSIDY BONDS WERE ISSUED.

The Union Pacific Railroad Company has commenced to render the reports called for, but under a reservation by advice of their law officer which cannot be accepted by this office. A copy of the letter of the president of the company containing this reservation is given in Appendix F. The directors have consented to submit the books and records of the company to inspection, which has been partially done in the office of the company at Boston, and some of the information given in this report has been so verified. The questions regarding the constitutionality of the sinking-fund act, the constitutionality of the act creating this bureau, the rate of compensation for carrying the mails, the disposal of their lands in connection with the "Dudymott" decision of this department, the so-called discrimination against the Kansas Pacific Railway Company, the date of the completion of the road, the constitution of "net earnings" in connection with the 5 per cent. thereof payable to the United States, and matters connected with the Credit Mobilier, and the contracts under which the road was built, have been unquestionably, and may be still, the source of much expense and some hardship to the company, not only from the cost of litigation and the locking up of large sums of money to which they may be equitably entitled, but much more so from their general influence upon the valuable property under its control and the uncertainty hanging around it. But, for all this and much more, the company must blame its officers or their predecessors and their own litigious spirit. This company being fully able to comply with the requirements of the law establishing a sinking-fund, and having nothing to conceal in its present management or affairs (its accounts, as now kept being in excellent condition, and its affairs under the management of able officers), would do itself much more justice by acquiescing in all the requirements of law, than it will by interposing litigation at every step; while, on the other hand, the government, in a spirit of equity and fairness, as well as of self-interest, cannot well do anything that shall tend to disrupt or not conserve this great property for the use of the government, for the great advantages it confers upon the nation, and for the benefit or reward of its enterprising owners. Litigation is waste; practical business settlement of business questions should be the rule. As all of these questions are now pending in the courts, there is no need of a discussion of them here. A special report, however, in regard to the "pro rate" question is in course of preparation.

As soon as it was known that the rates for freight between New York and San Francisco had been advanced by the Union and Central Pacific Railroad Companies, communication was had with one of the government directors as to the facts in the case. From information furnished in reply, it appears that the rates were advanced by the freight agents of the companies, acting upon their own idea of what was best for the companies' interests; that the executive committee of the Union Pacific Railroad had not taken any action in regard to it; and that the officers of the companies did not dissent from the action of their agents, although it was done without their express direction. The reason assigned for the advance is, that many shippers send their valuable goods to San Francisco by railroad and their coarse goods by ships around Cape Horn; and that it was found necessary to increase the rates in order to get shippers to make contracts covering all classes of goods at reasonable rates. In many cases, under such contracts, rates have been made lower than the previous tariff. This appears to have been a matter entirely within the discretion of the officers of these companies, and the government cannot

interfere until it is found that the net earnings of these companies exceed 10 per cent. upon the cost of their roads. (Section 18 U. S. Stat. at L., vol. 12, p. 497).

A statement of the indebtedness of this and the other Pacific Railroad Companies to the United States is given in Appendix H.

The Central Pacific Railroad Company has not complied with the law, and certificates as to their neglect so to do have been submitted, and will be hereafter submitted from time to time, to the Secretary for proceedings to be instituted accordingly. No reports have been furnished to this office under the law. A report rendered under section 20 of the act of 1862 and under the act of June 25, 1868, which have been repealed, was received by the department on October 5, 1878, and referred to this office. A great discrepancy appearing between the sworn statement of the president of the company and one made up from the figures given in the printed report to stockholders, an explanation was called for. The letters to the vice-president of the company and his replies are given in the appendix marked F.

A question arises in regard to this company, as to the right they may or may not have to lease hundreds of miles of another road in which their own stockholders are the principal owners, and to pay out millions of dollars for the privilege of operating the same at a loss, to the great detriment and insecurity of the rights of the government. The printed report of the company for the year 1877, does not afford information as to whether the company made anything or lost anything by the lease of a portion of the Southern Pacific Railroad. Its statement of income account, however, for that year, shows how its means are being disposed of. (See Appendix G.)

The dividends paid by this company for the year ending December 31, 1877, amounted to \$4,342,040. The total amount of dividends paid to that date has been \$18,453,670. The company's floating debt appears to be increasing over what it ought to be by its legitimate business. During the year ending June 30, 1877, the net increase of its floating debt or "bills and accounts payable" over the amount of "bills and accounts receivable" was \$5,310,169.37; in spite of which the directory saw fit to pay out over \$4,000,000 in dividends, and the annual interest charge, as shown by the income account, increased over \$300,000. This company does not appear to understand, as is evidenced by the letter of its vice-president given in Appendix F of this report, that, in accordance with the spirit manifested by both branches of Congress, the legislation had in regard to them has not grown out of any hostility, as their officers are pleased to call it, to their corporation, but, on the other hand, rather from a desire to see that no injustice should be done to them, and out of a spirit of kindness.

It is no new thing, however, for this company to oppose any effort of government to bring it within reasonable control and supervision, as the following extracts from the report of the board of commissioners of transportation of the State of California for the year 1877 will show. On page 8 of their report, the commissioners say:

In the month of March last certain cases were decided by the Supreme Court of the United States, at Washington, commonly called the "Granger Cases," which determined the principle that a legislature of a State has the right to control the rates of fare and freight for railroad transportation within its borders. Down to this time the course of the principal railroad managers had been practically to ignore the existence of this board. In transmitting to our secretary the passes necessary to enable us to travel over the road, the Central Pacific Railroad Company had seen fit to "deny the validity of the law creating the board of transportation commissioners," and to state formally that the passes were forwarded "not in obedience to said act, but merely as an act of courtesy to the members of the board and their secretary." After the rendi-

tion of these decisions became known, we received assurances from the president of the Central Pacific Railroad Company, in response to a verbal suggestion on our part, that its officers would, without prejudice to the pending litigation, furnish us all the statistical information called for in our blank for report of 1876 which it was in their power to give. Acting on this offer, and in view of the desirableness of presenting such information to the legislature and the public, a committee of our body was authorized to enter into communication with the officers of the Central Pacific Company for this purpose. The officers of the company, however, while expressing at all times thereafter a very cordial desire and willingness to give the desired information, and making appointments for the purpose of doing so, have never yet furnished any portion of it. At every new interview some misunderstanding as to what had taken place at the last preceding one was found to exist, or alleged, so that we have been led to conclude that, except through the judgment of the court of last resort, we shall not be able to obtain it.

On page 21 of their report, the commissioners, in alluding to the "Crédit Mobilier"—or, in other words, the illegal exaggeration and inflation of the fixed capital of railroad companies by means of construction companies composed of their own stockholders—of the Central Pacific, Southern Pacific, and California Pacific Railroads, use the following language in regard to the Central Pacific Railroad Company:

The capital stock of the Central Pacific Road is represented by shares* of stock, \$54,275,500; mortgage bonds, \$55,457,000; government bonds, \$27,755,680; in all, \$137,588,180.

To what extent this is an exaggeration we do not possess the means of stating with anything like accuracy. Circumstances indicate that the main stem of the road was built with means derived from the government and State aid bonds, and the first-mortgage bonds corresponding to it, and that the corresponding stock and land-grant bonds represent the profits of the construction company.

Further, on page 60 of the report, the commissioners, speaking of the difficulty of the State attempting to control this great corporation, say:

The question of regulation is complicated by the peculiar features of the railroad system of California. The Central Pacific Railroad owns or operates the greater portion of the roads within the State, and the question of regulation is reduced practically to the regulation of that road. Of its main line, 277 miles are within and 598 miles without the State. The branches aggregate 331 miles in length, and it operates by lease the Southern Pacific and other roads, whose aggregate length is 800 miles. The whole line operated and practically owned is, therefore, 2,006 miles in length, of which 1,408 miles are wholly within the State. Under the laws of California, it may, by consolidation, absorb all roads within the State, which it may now or shall hereafter control, and thus take them, to some extent at least, beyond the control of State laws.

It is a somewhat significant commentary on the report of the commissioners of California to say that the board was abolished at the last session of the California legislature; at least, it is so reported.

In regard to the regulation of rates for transportation, section 18 of the act of 1862, before alluded to, seems to prevent any interference, unless Congress shall see fit to order an inquiry and investigation, with the requisite power to send for papers and persons, in order to ascertain what the cost of this road and others built by government aid really was. The remedy should have been administered long ago (at the time of acceptance of the roads by the commissioners on the part of the United States) by the commissioners having kept in view the provisions of law in regard to this matter, so that they should not have allowed a single section to have been accepted without knowing and being able to certify to its exact cost.

In order to prevent a recurrence of these evils, it is submitted that this question should be kept in view by commissioners appointed hereafter to examine and report upon roads built by government aid. Inflated capital is the father of inflated prices.

The Kansas Pacific Railway Company and its receivers have rendered and are rendering reports as called for under the law. On November 3,

1876, the Hon. John T. Morton, judge, in proceedings pending in the district court of the third judicial district of the State of Kansas, appointed Carlos S. Greeley and Henry Villard receivers of this company. The receivers took possession of the road on November 21, 1876, and it was operated by them until their removal by the United States circuit court in the latter part of October, 1878. The business of this road is rapidly improving, the increase in gross earnings for the first nine months of the current calendar year over those for the same months of the previous year being more than 10 per cent. Had the sinking-fund bill for this company become a law, the following statement shows how it would have operated for the calendar year 1877:

EARNINGS.

Passenger department:	
Commercial.....	\$655,907 40
United States troops.....	34,154 70
United States mail.....	111,942 00
Express.....	128,693 91
Freight department:	
Commercial.....	2,185,616 15
United States Government.....	30,013 80
Contractors.....	113,800 22
Rents.....	19,211 87
Miscellaneous.....	5,394 01
Total earnings.....	3,284,734 06

OPERATING AND OTHER EXPENSES.

Conducting transportation.....	\$478,847 62
Motive power.....	552,384 86
Maintenance of cars.....	138,509 89
Maintenance of way.....	629,513 92
General expense.....	117,700 45
Miscellaneous income expenses.....	40,368 23
Taxes, State, county, and city.....	130,106 80
Total expenses.....	\$2,087,431 77
Ordinary net earnings.....	1,197,302 29
Deduct interest on first-mortgage bonds, \$6,303,000 at 6 per cent.....	\$378,180 00
Premium on gold for same.....	11,345 40
	389,525 40
Net earnings as defined in the bill.....	807,776 89

REQUIREMENTS UNDER THE BILL.

One-half of United States passenger earnings retained by United States.....	17,077 35
One-half of United States passenger earnings retained for sinking-fund.....	17,077 35
One-half of United States mail earnings retained by United States.....	55,871 00
One-half of United States mail earnings retained for sinking-fund.....	55,871 00
One-half of United States freight earnings retained by United States ..	15,006 90
One-half of United States freight earnings retained for sinking-fund...	15,006 90
Payment required from the company in cash on account of 5 per cent. of net earnings.....	25,833 72
Of the \$300,000 additional payment to be made by the company under the bill, no part is required.....	
Total, being 25 per cent. of net earnings.....	201,944 22

REQUIREMENTS FOR SINKING FUND.

One-half of United States transportation as above.....	88,055 25
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REQUIREMENTS FOR THE UNITED STATES.

One-half of United States transportation as above	\$88,055 25
Cash payment on account of 5 per cent. of net earnings as above	25,833 72
	113,888 97

AT THE DISPOSAL OF THE COMPANY.

Seventy-five per cent. of net earnings.....	605,832 67
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As the annual interest payment upon the other mortgage debt of the company is about \$1,132,502, the deficit toward paying the same, after the 75 per cent. of net earnings as above is used, would be more than \$500,000.

Under the laws now in force the settlement between this company and the United States for the calendar year 1877 may be approximately stated as follows:

One-half of transportation retained by United States	\$88,055 25
Five per cent. of ordinary net earnings retained out of the other half of transportation	59,865 11
Total amount retained and paid into the Treasury, applicable on account of the principal and interest of the subsidy bonds	147,920 36
Remainder of one-half of transportation payable to the railway company	28,190 14
Total amount of transportation performed for the United States.	176,110 50

The above figures have been taken from the published report of the receivers of the company, but have not yet been verified by an examination of the books.

A plan of reorganization for this company has been recommended by a committee of the first-mortgage bondholders, and is in course of preparation, by which it is proposed to fund the entire indebtedness of the company, including that to the United States, principal and interest, in a forty-year 6 per cent. gold bond. The calculations for this proposition are based upon the operations of the road while in the hands of the receivers, which appear to have been more profitable than was expected, and take into consideration also the enactment of a sinking-fund law in accordance with the bill which passed the Senate of the United States at its last session.

The Denver Pacific Railway and Telegraph Company and its receivers have rendered and are rendering reports to this office. By an order of the circuit court of the United States for the district of Colorado, made April 2, 1878, D. M. Edgerton and G. W. Clayton were appointed receivers of this company. The opening of the Colorado Central (a branch of the Union Pacific Railroad), on November 10, 1877, greatly reduced the earnings of this road, and its effect is severely felt. As part of the Kansas Pacific Road, although operated independently, the Denver Pacific has also suffered from causes affecting that road adversely.

The Sioux City and Pacific Railroad Company has fully and promptly complied with every requirement of this office, as far as its accounts and records permit.

The Central Branch Union Pacific Railroad Company has signified its intention to forward such reports as have been called for, but from stress of business-increase has asked more time.

These roads (the Union Pacific Railroad and branches), all of which have received subsidies in bonds as well as in lands, form together a family group or system of trunk and branch roads, evidently designed

for the benefit of the whole country, whose business would be best accommodated by termini at many points widely separated on the Missouri River. To complete this system as contemplated and authorized by law, it seems to be necessary that the Central Branch Union Pacific should continue its road to a junction with the Union Pacific at the one-hundreth meridian, and that company's claim, fortified as it is by the opinion of eminent lawyers, is, that they are justly entitled to all the subsidies and franchises for that extension of its line, granted by the acts of 1862 and 1864. In accordance with this claim the company filed a map in the Department of the Interior in September, 1871, but no final action was taken thereon. As to the rights of these branch roads, and of the Burlington and Missouri River Railroad in Nebraska in connection with them, to the use of the trunk-road of the Union Pacific Company, as one continuous line, with equal advantages and facilities without discrimination of any kind for or against either or any of them, and on the other hand, the right of the trunk-line to the use of the branch lines in the same way, special request has been made upon each of the companies concerned for information necessary to a full and fair examination of the question previous to report thereon, in accordance with the intention of Congress, as signified by the passage of Senate bill No. 1337, June 14, 1878.

THE CORPORATIONS TO WHICH LANDS ONLY HAVE BEEN GRANTED
BY THE UNITED STATES.

Of these railroad companies, Nos. 7 to 15 in the appendix, List B, the Texas Pacific Railway Company rendered its customary report to the department on October 5, 1878. Upon the reference of the report to this office, explanations in regard to the same were called for, which it is understood will be furnished by the company; but the company was informed that the regular reports as requested under the law were still required to be made. The Southern Pacific Railroad Company of California has made no report to this office, but has referred the law and the requests made under it to the consideration of its law officers. The Northern Pacific Railroad Company has made and continues to make full and acceptable reports. The Saint Louis and San Francisco Railway Company of Missouri (purchaser of the Missouri portion of the Atlantic and Pacific Railroad), has complied with the law, and will render reports to the best of its ability. The Atlantic and Pacific Railroad Company does not operate that portion of its road which it still owns, extending from the western line of the State of Missouri to Vinita, in the Indian Territory, but it is operated by the Saint Louis and San Francisco Railway Company, at a considerable loss. The president of the Burlington and Missouri River Railroad Company in Nebraska at first complied with the request of this office under the law, but, acting under legal advice, he has referred further requests to the directors of the company for a final decision. The Oregon and California Railroad Company, and the Oregon Central Railroad Company, of Oregon, have both complied with the law as far as possible. The New Orleans, Baton Rouge and Vicksburg Railroad Company of Louisiana has not been heard from, but it is understood that none of its road has yet been built.

It will be observed by reference to Appendix C, that the conditions in regard to transportation for the United States, imposed upon these nine corporations by the land-grant acts, essentially differ. While the Saint Louis and San Francisco Railway Company of Missouri, is required to give the United States the use of its railroad from Saint Louis to Spring-

field, Mo., as a highway "free from toll or other charge upon the transportation of any property or troops of the United States," and from Springfield to Vinita, at rates not higher than it charges "individuals for like transportation service"; and the Oregon and California Railroad Company of Oregon, and the California and Oregon branch of the Central Pacific Railroad Company of California, are required to transport property or troops of the United States "over said road at the cost, charge, and expense of the corporations or companies owning or operating the same, when so required by the Government of the United States"; the Oregon Central Railroad Company of Oregon, and the Burlington and Missouri River Railroad in Nebraska, have no conditions whatever imposed, and the remaining companies named in the list are authorized to receive full compensation from the United States for like services at fair and reasonable rates not to exceed the price paid by private parties, some of them subject to such restrictive regulations in regard to charges as Congress may impose, and others not.

THE RAILROAD COMPANIES WHICH HAVE RECEIVED GRANTS OF LANDS FROM THE UNITED STATES THROUGH STATE OR TERRITORIAL GOVERNMENTS.

Of these companies, Nos. 16 to 46 in Appendix B, the following have not rendered reports by reason of the interruption of business during the past four months owing to the prevalence of yellow fever in the Southwestern States, viz:

Memphis and Little Rock Railroad Company.
North Louisiana and Texas Railroad Company.
Managers of Morgan's Louisiana and Texas Railroad.

The following railroad companies have complied in a measure with the requests of this office, viz:

Hannibal and Saint Joseph Railroad Company.
Leavenworth, Lawrence and Galveston Railroad Company.
Missouri River, Fort Scott and Gulf Railroad Company.
North Wisconsin Railroad Company.
Winona and Saint Peter Railroad Company (through the Chicago and Northwestern Railway Company).
Southern Minnesota Railway Company.
Saint Paul and Duluth Railroad Company.

The following railroad companies are preparing to comply with the requests of this office, viz:

Little Rock and Fort Smith Railway Company.
Memphis and Little Rock Railroad Company.
Atchison, Topeka and Santa Fé Railroad Company.
Chicago, Rock Island and Pacific Railroad Company.
Missouri Pacific Railroad Company.

Of the remaining companies some have not been heard from, others have the question of compliance under consideration, and still others have through their law officers absolutely refused.

As the law provides among the duties of this office "to see that the laws relating to said companies are enforced," it will be my duty to certify all cases of neglect or refusal under the law to the Secretary for the institution of the proceedings necessary to judicially enforce the forfeitures therein provided.

The conditions imposed upon all these land-grant railroad companies (those that received their grants through State or Territorial government as well as those receiving grants directly to corporations) may be

divided into three classes, viz: 1st. Transportation for the government without charge whatever; 2d. Transportation for the government at fair and reasonable rates,—ordinary tariff charges; and 3d. Use of the road as a public highway, free from toll or other charge upon the transportation of any property or troops of the United States. By these conditions some companies have had an onerous tax imposed upon them without having realized much benefit from the land-grant; others, with large and profitable grants, have been left to make what charges they choose, and have had comparatively little to do for the government, other than mail transportation; while others, and much the larger number, have been saddled with an uncertain obligation, which, in the early years of the late war, became so burdensome that relief was granted to some of them by Congress. Under an arrangement entered into between the War Department and these railroad companies, in 1861, the accounts of these companies for freight and transportation of troops for that department were up to June, 1874, settled by a deduction of thirty-three and one-third per cent. from their regular tariff rates. In 1865, the Committee on the Judiciary of the House of Representatives having been instructed by resolution to inquire into this question of transportation for the United States over such roads, and correlative questions, and having made a full inquiry thereon, reported the following resolution and recommended its adoption:

Resolved, That the several railroad companies which have received from States grants of public lands, made to such States by acts of Congress, for the purpose of aiding in the construction of the roads of such companies, respectively, are required to transport the property and troops of the United States over their roads free of toll or other charge whatsoever.

Presuming that the regular rates are charged in all cases, it is possible that the deduction of 33 $\frac{1}{3}$ per cent. does not give the government its just rights under the grant in some cases, and that in other cases it may work harshly and arbitrarily against the railroad companies. The question, however, as to what the government is entitled to, has been decided by the Supreme Court of the United States in the case *3 Otto*, p. 442, *Lake Superior and Mississippi Railroad Company vs. The United States*; and *Atchison, Topeka and Santa Fé Railroad Company vs. United States*, in the following language: "That the reservation in question secures to the government only a free use of the railroads concerned, and that it does not entitle the government to have troops or property transported by the companies over their respective roads free of charge for transporting the same"; and the court awarded to these companies "compensation for all transportation performed by them respectively of troops and property of the government (excepting the mails), subject to a fair deduction for the use of their respective railroads." In order to ascertain what that "fair deduction" is worth to the government, and inasmuch as the arrangement made with the companies by the War Department in 1861 was more of a temporary expedient rather than a final settlement of the question, to a full and proper discussion of which the accounts and operations of each railroad affected ought to be examined and made the basis of the settlement, a statement has been prepared in this office (Appendix L) showing the amount to be deducted under various formulas. By this statement it will be seen that, leaving out of the calculation all charges for "maintenance of way," and reimbursing the railroad companies with the proportionate amount of "transportation expenses," and giving the companies in addition thereto a rental for the use of equipment and an additional profit of 10 per cent. upon the amount of these two items, the average deduction, as applied to all the railroads

in the United States, would be 44.38 per cent. The same rule applied to the Pennsylvania Railroad (probably the highest standard railroad in the United States, both as to its condition and the economy of its operation), gives a deduction of 44.74 per cent.; applied to other railroads the percentage of deduction will be seen to vary from 65.32 per cent. in the case of the Union Pacific Railroad to 24.36 per cent. in the case of the Erie Railway, the lowest percentage found, 6.84 per cent., in the case of the Atlantic and Great Western Railroad, being exceptional.

There are strong reasons why the conditions imposed by these land-grant acts should be repealed: 1st, that they operate unequally as between the railroad companies, both as to the amount of transportation and also as to the charge for the same; 2d, that but one department of the government, the War Department, is entitled to much benefit; 3d, that where the grant of land has proved much more valuable comparatively than elsewhere, the burden of the condition has been much lighter in the former case than in the latter; 4th, that any settlement as to the amount of deduction to which the government is entitled under the decision of the Supreme Court, *upon one fixed rate*, must be inequitable; 5th, that a settlement upon the basis of the operations of each individual company, while in itself neither difficult nor unjust, would probably delay payments and become tedious to the companies, whose compensation for such service should be just as promptly paid as that for the mail service or for the service of any private person.

A broad and equitable view of this whole question in relation to the conditions imposed upon land-grant railroads would seem to indicate that at some early day the repeal of these conditions should be considered by Congress. In order that the whole country may receive some beneficial and proportionate return for these valuable land-grants—in cases where they have absolutely proved valuable, and where the company is receiving considerable and increasing profits from the proceeds of sales of land—it may not be too much to ask of them that the mails of the United States be carried over their roads at some merely nominal charge. This would operate equitably to all of the companies, the work would not be too burdensome, but would grow with their growth, it would be a great and continuous public benefit, and it would afford some relief to the mail-service appropriations. Appendix N shows how much is annually paid for the transportation of the mail to these land-grant companies. Appendix O shows the quantity of public lands certified to States and corporations for railroads by years.

RECOMMENDATIONS IN REGARD TO LEGISLATION.

The following recommendations are respectfully submitted in regard to legislation which seems to be required in order to promote the prosperity of the railroads in which the government is more immediately interested, and to remedy defects in present laws:

First. That section 3 of the Pacific Railroad act, approved July 1, 1862, be amended by the addition of the following words: "Provided all of the lands belonging to the United States of the alternate sections adjoining the sections granted to the railroad companies have been sold, pre-empted, or otherwise disposed of." In explanation and support of this recommendation, it may be stated that the railroad companies claim that any reduction by them of the price of their remaining lands would not increase their sales or the settlement of the country; that the general depression for some years past has kept the tide of migration back; that just so much of these lands can be disposed of annually and no

more so long as the Indians are permitted to make raids and onslaughts on the settlers; and that the companies could have disposed of these lands to their interest creditors or stockholders at nominal prices, but have considered it right and proper to retain them as a general asset.

Second. That the several departments of the government having stores or supplies for shipment to the Pacific States and Territories be directed by resolution of Congress, or otherwise, to forward the same over the Pacific Railroads *via* the most direct branch road at the lowest rates at which contracts have been made by any or all of said companies with any private person, transportation company, or other corporation, which freight shall be forwarded over all of said roads as one continuous line without discrimination of any kind whatsoever. The companies complain of the withholding and diverting of freights by the government, for which the government has to pay money out of the Treasury and take the risk of long ocean voyages. Such a direction on the part of Congress would put to practical test, by the government itself, the vexed question of continuous use of these roads as one line without discrimination, being a somewhat different one from that of general discrimination as to rates only.

Third. That the United States courts be requested or directed by resolution of Congress, or otherwise, that whenever a receiver is required for any of the railroad companies to which the United States have granted any subsidy in bonds or lands, to appoint no officer, director, stockholder, or creditor to such receivership; and in case the railroad company is indebted to the United States, that such receivership continue until the indebtedness to the United States is paid or permanently provided for. The difficulty in the receivership of the Kansas Pacific Railway Company, in which charges and countercharges by one of the receivers against the other have been made and heard in the proper court, and the discharge of both, and the appointment of another made, are facts which show the necessity of some enactment of this kind.

Fourth. That by a resolution of Congress the Central Branch Union Pacific Railroad Company, if such resolution be necessary, be authorized to continue its road to a junction with the Union Pacific Railroad at or near the one hundredth meridian, in order to complete the Pacific Railroad system as originally contemplated; and that the said railroad company, in lieu of the loan of credit and grant of lands to which it may be entitled, under the Pacific Railroad acts of July 1, 1862, and July 2, 1864, shall be entitled to a grant of \$——— per mile of road so constructed, which grant shall not be repaid by the said company, but in lieu of repayment that the mails of the United States shall be forever carried over said road free of all charge whatsoever by said company or its successors. The question of the continuation of this road has been frequently brought by this company to the attention of the executive and legislative branches of the government. The improbability of the repayment by this company of its present indebtedness to the United States, which the company claims grows out of the legislation which located them in the woods, and the hardship thereby endured, seem to be just grounds for a rectification of this matter.

Fifth. That neither money nor public lands be granted to any corporation to aid in the construction of a railroad hereafter; that in any and every case where the line of railroad for which grants have been made is in process of construction, the time of completion be extended; and that all grants of land for railroads be declared forfeited in every case where the line of said roads has not been located, surveyed, and

some portion of it constructed and used. The fact that the public domain has been so greatly reduced by the grants already made, and that the public burden of taxation still continues excessive, seem to require some restriction in regard to grants. In extending the time of completion of railroads already built and in operation, the large number of unwary stockholders who have invested their small means in such enterprises should be favorably considered.

Sixth. That in cases where a railroad company has had lands certified to it through a State under the land-grant acts as "railroad lands," which lands were acquired by the State under the swamp-land acts as "swamp lands," the Commissioner of the General Land Office be authorized, whenever such fact be satisfactorily established by proper evidence presented to him, to correct the records of his office accordingly; and that the railroad company affected thereby be released from the conditions imposed by the land-grant act, provided that any and all of the lands obtained by virtue of the land-grant act be reconveyed to the United States. A case in point in this respect is that of Morgan's Louisiana and Texas Railroad. By the records of the General Land Office it appears that this road has received 51,452.03 acres of public lands, but by affidavits of its officers and others, presented to the Committee on Public Lands of the Senate at the last session of Congress, it is shown that the lands so obtained by the company of which the present owners are the successors were erroneously located as railroad lands, when they should have been located as swamp lands. A bill for relief (S. 721, Forty-fifth Congress, second session) has been introduced, but was not reached before adjournment. A more definite bill, with provisions as to the lands held by the company, would better serve the purpose.

Seventh. That the government directors of the Union Pacific Railroad be appointed government directors for the Central Pacific and the several branch railroads of the system authorized by the Pacific Railroad acts of July 1, 1862, and July 2, 1864; that in lieu of compensation, as heretofore paid them by the Union Pacific Railroad Company, they be paid a fixed annual salary by the United States, at the rate of \$———; that all of said railroad companies furnish the said directors transportation over their roads, without expense to the United States, when traveling on public business; that other actual and necessary expenses of said directors be paid by appropriation by Congress; an account of such expenses, traveling and otherwise, to be rendered to and approved by the Secretary of the Interior before payment of the same; that no government director hereafter receive any compensation from any of said companies for any service rendered to or for either of them, or make or be interested in any contract with the said companies, or any of them, whereby he shall receive any emolument or advantage whatever, with penalty for infraction of this provision. The amendment to Senate bill No. 1368, Forty-fifth Congress, second session (Congressional Record, vol. 7, part 5, p. 4589), was in some respect similar to that herein proposed, and there seems to be a necessity for a government directory for the Central Pacific Railroad Company as much as for the Union Pacific Railroad Company, if such government directors are to be continued.

Eighth. That section 13 of the act approved July 27, 1866 (14 U. S. Stat. at L., p. 297), as far as the same relates to reports to be rendered by the Atlantic and Pacific Railroad Company to the department of the Interior, be repealed.

Ninth. That section 13 of the act approved March 3, 1871 (16 U. S. Stat. at L., p. 577), relating to reports to be made by the Texas and Pacific Railway Company to the Department of the Interior, be repealed.

For ready reference a list of the laws of the United States relating to railroad companies and railroad matters in general is given in the appendix, marked N.

Whether in considering railroads as "public highways," and the owners of them as "common carriers," the rights and responsibilities of the companies as bodies corporate have been properly estimated; whether lower passenger rates and full cars, as evidenced by the Centennial passenger traffic of 1876, would not be much more profitable to railroad companies; whether the abolition of the free-pass system, demoralizing and inequitable as it is, and prohibited by the constitution of some States as regards public officers, is not a considerable factor in the question of a reduction of passenger rates; whether the rates charged for freight transported over railroads are not altogether too low as compared with water transportation rates, time and safety being duly considered; whether the compensation paid by the government for mail service on railroads is based upon just and correct principles, and whether one fixed rate can be applied equitably to all railroad companies; what effect, if any, the construction of narrow-gauge railroads will ultimately have upon those of standard gauge, and whether the building of them as well as those of standard gauge on credit should not in some way be restricted by legislation, State or national: these and a multitude of minor questions affecting railroads and railroad corporations generally, all of them bearing more or less upon the solution of "the railroad problem," (which, in his able and timely essay on the subject, Mr. Charles Francis Adams, jr., has so tersely explained as follows:

As an innovating force, the railroad has made itself felt and produced its problems in every department of civilized life. So has the steam-engine; so has the newspaper; so has gunpowder. Unlike all these, however, the railroad has developed one distinctive problem, and a problem which actively presses for solution. It has done so for the reason that it has not only usurped, in modern communities, the more important functions of the highway, but those who own it have also undertaken to do the work which was formerly done on the highway. Moreover, as events have developed themselves, it has become apparent that the recognized laws of trade operate but imperfectly at best in regulating the use made of these modern thoroughfares by those who thus both own and monopolize them. Consequently the political governments of the various countries have been called upon in some way to make good, through legislation, the deficiencies thus revealed in the working of the natural laws. This is the railroad problem),

however interesting their discussion may be these questions are perhaps foreign to the subject of this report.

Appendix I gives an abstract from "Poor's Manual of Railroads for 1878" as to revenue, &c., on the unitary standard of 100 miles. Appendix K gives a statement from "Poor's Manual for 1878" showing the condition and business of railroad companies in the United States by groups of States for the calendar year 1877.

THE PERSONNEL AND EXPENSE OF THE OFFICE.

The following-named persons are employés of this office:

	Annual salary.
Theos. French, Auditor.....	\$5,000
Southwick Guthrie, bookkeeper.....	2,400
August Duddenhausen, assistant bookkeeper.....	2,000
William C. Pennywitt, clerk.....	1,200
Charles W. Foulke, clerk.....	900
William F. Ryan, copyist.....	600
Bradford Whiteley, messenger.....	300

The act of Congress approved June 19, 1878, having provided for the expenditure in detail of the sum of \$14,400, and having but appropriated the sum of \$12,000, it has been submitted that a deficiency appropriation for the sum of \$2,400 be made for the uses and purposes of the act; and, in addition thereto, a deficiency appropriation for the sum of \$600 for the payment of a messenger be also made.

In the estimate for the appropriation for this office for the fiscal year ending June 30, 1880, it has been submitted that a competent railroad engineer be provided for at an annual salary of \$2,000, and an additional clerk at an annual salary of \$1,200.

Of the appropriation for traveling and other expenses, amounting to \$2,000, the sum of \$112.69 has been expended in visiting the offices of the Union Pacific Railroad Company and the Atchison, Topeka and Santa Fé Railroad Company in Boston, those of the Union Pacific Railroad and the Northern Pacific Railroad Companies in New York, and other offices.

Of the appropriation for incidental expenses for books, &c., amounting to \$700, the sum of \$55.95 has been expended. No appropriation having been made specially for furniture, expenditures for the same have been considered as incidental expenses, and paid from that appropriation to the amount of \$441.75.

The expense incurred for printing books, forms, and other blanks for the use of the office for the fiscal year ending June 30, 1879, has amounted to \$456.07, and for stationery to October 31, 1878, to \$80.07, both of which amounts have been paid out of the general appropriation for the department. The total expenditures on account of this office to date, excepting salaries, have amounted to \$1,146.53.

It affords me pleasure to acknowledge the industry, application, and ability with which I have been supported by my subordinates.

Respectfully submitted.

THEOS. FRENCH,
Auditor.

The Hon. SECRETARY OF THE INTERIOR.

LIST OF APPENDIXES.

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- B. List of railroad companies included in the act.
- C. List of railroads, bonds, and lands granted, and the conditions imposed.
- D. List of forms adopted for reports from railroad companies.
- E. Act establishing a sinking-fund in the Treasury of the United States for the Union Pacific and Central Pacific Railroad Companies.
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- H. Statement of the accounts of the Pacific Railroad Companies to which bonds have been issued, showing principal and interest, and the amounts reimbursed by transportation service to June 30, 1878.
- I. Extract from "Poor's Manual of the Railroads of the United States for 1878," showing capital, cost, revenue, &c., for the year 1877, on the unitary standard of one hundred miles.
- K. Statement from "Poor's Manual of Railroads, &c., for 1878," showing condition and business of railroads in the United States by groups of States.
- L. Statement showing amount of "fair deduction for use of a railroad free from toll or other charge," under various formulas applied to different railroads.
- M. Statement showing the amounts paid to railroad companies included in the act approved June 19, 1878, for transportation of the mails for the fiscal year 1878-'79.
- N. List of the laws of the United States relating to railroad companies and railroad matters in general, arranged chronologically by volumes.
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APPENDIXES.

APPENDIX A.

AN ACT to create an Auditor of Railroad Accounts, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section twenty of the act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes," approved July first, anno Domini eighteen hundred and sixty-two, and the act entitled "An act relative to filing reports of railroad companies," approved June twenty-fifth, anno Domini eighteen hundred and sixty-eight, be, and the same are hereby, repealed.

SECTION 2. That the office of Auditor of Railroad Accounts is hereby established as a bureau of the Interior Department. The said Auditor shall be appointed by the President of the United States, by and with the advice and consent of the Senate. The annual salary of the said Auditor shall be, and is hereby, fixed at the sum of five thousand dollars. To assist the said Auditor to perform the duties of said office, the Secretary of the Interior shall appoint one bookkeeper at an annual salary of two thousand four hundred dollars, one assistant bookkeeper at an annual salary of two thousand dollars, one clerk at an annual salary of one thousand four hundred dollars, and one copyist at an annual salary of nine hundred dollars. Actual and necessary traveling and other expenses incurred in visiting the offices of the railroad companies hereinafter described, and for which vouchers shall be rendered, are hereby allowed, not to exceed the sum of two thousand dollars per annum; and it is hereby specially provided that each of said railroad companies shall furnish transportation over its own road, without expense to the United States, for the said Auditor or any person acting under his direction. Incidental expenses for books, stationery, and other material necessary for the use of said bureau are hereby allowed, not to exceed the sum of seven hundred dollars per annum. And the sum of twelve thousand dollars is hereby appropriated for the uses and purposes of this act for the fiscal year ending June thirtieth, anno Domini eighteen hundred and seventy-nine.

SECTION 3. That the duties of the said Auditor under and subject to the direction of the Secretary of the Interior shall be, to prescribe a system of reports to be rendered to him by the railroad companies whose roads are in whole or in part west, north, or south of the Missouri River, and to which the United States have granted any loan of credit or subsidy in bonds or lands; to examine the books and accounts of each of said railroad companies once in each fiscal year, and at such other times as may be deemed by him necessary to determine the correctness of any report received from them; to assist the government directors of any of said railroad companies in all matters which come under their cognizance whenever they may officially request such assistance; to see that the laws relating to said companies are enforced; to furnish such information to the several departments of the government in regard to tariffs for freight and passengers and in regard to the accounts of said railroad companies as may be by them required, or, in the absence of any request therefor, as he may deem expedient for the interest of the government; and to make an annual report to the Secretary of the Interior, on the first day of November, on the condition of each of said railroad companies, their road, accounts, and affairs, for the fiscal year ending June thirtieth immediately preceding.

SECTION 4. That each and every railroad company aforesaid which has received from the United States any bonds of the said United States, issued by way of loan to aid in constructing or furnishing its road, or which has received from the United States any lands granted to it for a similar purpose, shall make to the said Auditor any and all such reports as he may require from time to time, and shall submit its books and records to the inspection of said Auditor or any person acting in his place and stead, at any time that the said Auditor may request, in the office where said books and records are usually kept; and the said Auditor, or his authorized representative, shall make such transcripts from the said books and records as he may desire.

SECTION 5. That if any railroad company aforesaid shall neglect or refuse to make such reports as may be called for, or refuse to submit its books and records to inspection, as provided in section four of this act, such neglect or refusal shall operate as a

forfeiture, in each case of such neglect or refusal, of a sum not less than one thousand nor more than five thousand dollars, to be recovered by the Attorney-General of the United States in the name and for the use and benefit of the United States; and it shall be the duty of the Secretary of the Interior, in all such cases of neglect or refusal as aforesaid, to inform the Attorney-General of the facts, to the end that such forfeiture or forfeitures may be judicially enforced.

SECTION 6. This act shall apply to any and all persons or corporations into whose hands either of said railroads may lawfully come, as well as to the original companies.

SECTION 7. This act shall take effect on and after the first day of July, anno Domini eighteen hundred and seventy-eight.

Approved, June 19, 1878.

APPENDIX B.

List of railroad companies included in the act approved June 19, 1878, entitled "An act to create an Auditor of Railroad Accounts, and for other purposes."

Bonds, lands, right of way, depot grounds, and materials have been granted by the United States to the following corporations:

1. Union Pacific Railroad Company.
2. Central Pacific Railroad Company of California, including the Western Pacific Railroad Company of California, with which it was consolidated June 23, 1870.
3. Kansas Pacific Railway Company, formerly "Union Pacific Railway Company (Eastern Division)," and prior to that the "Leavenworth, Pawnee and Western Railroad Company."
4. Denver Pacific Railway and Telegraph Company, deemed to be a part and extension of the Kansas Pacific Railroad, to the point of junction thereof with the road of the Union Pacific Railroad Company at Cheyenne, by act of Congress approved June 20, 1874.
5. Central Branch Union Pacific Railroad Company, formerly "Atchison and Pike's Peak Railroad Company."
6. Sioux City and Pacific Railroad Company.

Lands, right of way, depot grounds, and materials have been granted by the United States to the following corporations:

7. Texas and Pacific Railway Company, formerly "Texas and Pacific Railroad Company."
8. Southern Pacific Railroad Company of California.
9. Northern Pacific Railroad Company.
10. Saint Louis and San Francisco Railway Company of Missouri, successor in the State of Missouri to the "Atlantic and Pacific Railroad Company."
11. Atlantic and Pacific Railroad Company, still owner of the railroad west of Missouri.
12. Burlington and Missouri River Railroad Company in Nebraska, assignee of the "Burlington and Missouri River Railroad Company" of Iowa.
13. Oregon and California Railroad Company, formerly "Oregon Central Railroad Company of Salem," Oregon.
14. Oregon Central Railroad Company of Oregon.
15. New Orleans, Baton Rouge and Vicksburg Railroad Company of Louisiana.

Lands, right of way, depot grounds, and materials have been granted by the United States to the States named, to aid in the construction of the following railroads:

16. Missouri—Hannibal and Saint Joseph Railroad.
 17. Missouri and Arkansas—Saint Louis, Iron Mountain and Southern Railway, including the Cairo and Fulton Railroad.
 18. Arkansas—Little Rock and Fort Smith Railway.
 19. Arkansas—Memphis and Little Rock Railroad.
 20. Kansas—Missouri, Kansas and Texas Railway.
 21. Kansas—Atchison, Topeka and Santa Fé Railroad.
 22. Kansas—Leavenworth, Lawrence and Galveston Railroad.
 23. Kansas—Missouri River, Fort Scott and Gulf Railroad.
- (The lands having been reconveyed to the United States, the railroad is no longer considered a land-grant road.)
24. Kansas—Saint Joseph and Western Railroad, late Saint Joseph and Denver City Railroad.
 25. Iowa—Chicago, Burlington and Quincy Railroad, between Burlington and the Missouri River.

26. Iowa—Chicago, Rock Island and Pacific Railroad.
27. Iowa—Cedar Rapids and Missouri River Railroad.
28. Iowa—Dubuque and Sioux City Railroad.
29. Iowa—Iowa Falls and Sioux City Railroad.
30. Iowa and Minnesota—Sioux City and Saint Paul Railroad.
31. Minnesota—Saint Paul and Sioux City Railroad.
32. Chicago, Milwaukee and Saint Paul Railway.
Iowa—McGregor and Missouri River Railroad.
Minnesota—Minnesota Central Railroad.
Minnesota—Hastings and Dakota Railroad.
Wisconsin—La Crosse and Milwaukee Railroad.
33. Wisconsin—Wisconsin Central Railroad.
34. Wisconsin—Chicago, Saint Paul and Minneapolis Railroad, late "West Wisconsin."
35. Wisconsin—North Wisconsin Railroad.
36. Minnesota—Winona and Saint Peter Railroad, owned and operated by the Chicago and Northwestern Railway Company.
37. Minnesota—Southern Minnesota Railway.
38. Minnesota—Saint Paul and Duluth Railroad.
39. Minnesota—Saint Paul and Pacific Railroad, First Division.
40. Minnesota—Saint Paul and Pacific Railroad, First Division, Branch Line.
41. Minnesota—Saint Paul and Pacific Railroad, Saint Vincent Extension.
42. Louisiana—Vicksburg, Shreveport and Texas Railroad.
43. Louisiana—Morgan's Louisiana and Texas Railroad.
44. Missouri—Missouri Pacific Railroad, formerly "Southwest Branch Pacific Railroad."
45. Minnesota—Stillwater and Saint Paul Railroad.
46. Minnesota—Saint Paul, Stillwater and Taylor's Falls Railroad.

APPENDIX C.

Names of railroad companies.	Acts of Congress making grants.	Amount of bonds issued under grants.	Estimated number of acres covered by grants.	Number of acres certified under grants to June 30, 1878.	Conditions as to government transportation.
Union Pacific Railroad Company.....	July 1, 1862	\$27,236,512	12,000,000.00	1 859,474.59	Fair and reasonable rates, A.
Central Pacific Railroad Company.....	July 2, 1864	25,885,120	8,000,000.00	{ 1,117,037.17	Do.
(Western Pacific Railroad Company).....	July 1, 1862	1,970,560	1,100,000.00	550,644.76	Cost of company, B
(Oregon Branch Central Pacific Railroad Company).....	July 25, 1866	6,303,000	3,000,000.00	772,119.64	Fair and reasonable rates, A.
Kansas Pacific Railway Company.....	July 1, 1862		1,100,000.00	49,811.59	Do.
Denver Pacific Railway and Telegraph Company.....	July 2, 1864		245,166.00	186,453.28	Do.
Central Branch Union Pacific Railroad Company.....	Mar. 3, 1869	1,628,320	60,000.00	41,318.23	Do.
Sioux City and Pacific Railroad Company.....	July 1, 1862		18,000,000.00	None.....	Fair and reasonable rates, C.
Texas and Pacific Railway Company.....	July 27, 1866		6,000,000.00	980,757.50	No higher than for individuals.
Southern Pacific Railroad Company.....	Mar. 3, 1871		3,520,000.00	743,493.44	Congress may regulate, D.
Northern Pacific Railroad Company.....	July 2, 1864		47,000,000.00	504,365.32	Do.
Saint Louis and San Francisco Railway Company.....	June 10, 1852				Free from toll or other charge, E.
Atlantic and Pacific Railway Company.....	July 27, 1866				Congress may regulate, D.
Burlington and Missouri River Railroad Company in Nebraska.....	July 2, 1864		2,441,600.00	2,374,090.77	No conditions.
Oregon and California Railroad Company.....	July 25, 1866		3,500,000.00	322,462.40	Cost of company, B.
Oregon Central Railroad Company.....	May 4, 1870		1,200,000.00	None.....	No conditions.
New Orleans, Baton Rouge and Vicksburg Railroad Company.....	Mar. 3, 1871		3,800,000.00	603,506.34	Fair and reasonable rates, C.
Hannibal and Saint Joseph Railroad Company.....	June 10, 1852		781,944.83	{ 1,383,614.66	Free from toll or other charge, E.
Saint Louis, Iron Mountain and Southern Railway Company.....	Feb. 9, 1853		1,379,929.31	{ 1,383,614.66	Free from toll or other charge, F.
(Cairo and Fulton Railroad Company).....	July 4, 1866		1,504,000.00		Cost of company, G.
Little Rock and Fort Smith Railway Company.....	July 28, 1866		1,009,296.34	916,716.44	Free from toll or other charge, F.
Memphis and Little Rock Railroad Company.....	Feb. 9, 1853		804,185.80	141,844.70	Cost of company, G.
Missouri, Kansas and Texas Railway Company.....	July 28, 1866		1,520,000.00	658,068.13	Free from toll or other charge, F.
Atchison, Topeka, and Santa Fé Railroad Company.....	Mar. 3, 1863		3,000,000.00	2,474,686.47	Free of charge, H.
Leavenworth, Lawrence and Galveston Railroad Company.....	Mar. 3, 1863		800,000.00	256,281.66	Free from cost or charge, I.
					Free from toll or other charge, F.

Missouri River, Fort Scott and Gulf Railroad Company	July 25, 1866				Lands reconveyed to the United States.
Saint Joseph and Western Railroad Company	July 23, 1866			441, 158. 25	Fair and reasonable rates, K.
Chicago, Burlington and Quincy Railroad Company	May 15, 1856		1, 700, 000. 00	388, 817. 35	Free from toll or other charge, E.
Chicago, Rock Island and Pacific Railroad Company	June 2, 1864		948, 643. 66		Do.
Cedar Rapids and Missouri River Railroad Company	May 15, 1856		1, 261, 181. 60	643, 307. 17	Do.
Dubuque and Sioux City Railroad Company	June 2, 1864		1, 298, 739. 00	1, 140, 493. 53	Do.
Iowa Falls and Sioux City Railroad Company	May 15, 1856		1, 226, 163. 05	549, 345. 41	Do.
Sioux City and Saint Paul Railroad Company	June 2, 1864			683, 023. 80	Do.
Saint Paul and Sioux City Railroad Company	May 12, 1864		524, 800. 00	407, 910. 21	Do.
Chicago, Milwaukee and Saint Paul Railway Company	Mar. 3, 1857		1, 010, 000. 00	1, 199, 849. 07	Free from toll or other charge, F.
(Minnesota Central Railroad Company)	May 12, 1864				Free from toll or other charge, E.
(McGregor and Missouri River Railroad Company)	July 4, 1866		643, 403. 00	179, 736. 01	Do.
(Hastings and Dakota Railroad Company)	May 5, 1864		1, 536, 000. 00	138, 284. 69	Cost of company, L.
Wisconsin Central Railroad Company	June 3, 1856		550, 000. 00	169, 790. 81	Free from toll or other charge, E.
Chicago, Saint Paul and Minneapolis Railroad Company	May 5, 1864		1, 800, 000. 00	546, 486. 05	Do.
North Wisconsin Railroad Company	June 3, 1856		999, 983. 38	802, 816. 89	Do.
Chicago and Northwestern Railway Company	May 3, 1856		1, 408, 452. 69	843, 497. 58	Do.
(Winona and Saint Peter Railroad Company)	Mar. 3, 1857				Free from toll or other charge, F.
Southern Minnesota Railway Company	Mar. 3, 1865		1, 410, 000. 00	1, 665, 078. 38	Cost of company, L.
Saint Paul and Duluth Railroad Company	July 4, 1866		735, 000. 00	285, 403. 74	Free from toll or other charge, E.
Saint Paul and Pacific Railroad Company	May 5, 1864		920, 000. 00	860, 564. 09	Free from toll or other charge, F.
(First Division)	July 13, 1866				Free from toll or other charge, F.
(Branch Line)	Mar. 3, 1857		1, 248, 638. 95	1, 248, 184. 18	Do.
(Saint Vincent Extension)	July 12, 1862		1, 475, 000. 00	537, 842. 42	Do.
Vicksburg, Shreveport and Texas Railroad Company	Mar. 3, 1865		2, 000, 000. 00	780, 291. 75	Free from toll or other charge, E.
Morgan's Louisiana and Texas Railroad and Steamship Company	Mar. 3, 1871		610, 880. 00	353, 211. 70	Do.
Missouri Pacific Railroad Company	June 3, 1856		967, 840. 00	51, 452. 03	Do.
Stillwater and Saint Paul Railroad Company	June 10, 1852		1, 161, 235. 07	1, 161, 204. 51	Free from toll or other charge, F.
Saint Paul, Stillwater and Taylor's Falls Railroad Company	Mar. 3, 1857		(*)		Do.
	Mar. 3, 1865		(*)		
	Mar. 3, 1857				
	Mar. 3, 1865				
Total bonds and lands		\$64, 623, 512	196, 424, 800. 68	31, 014, 496. 71	

* ands estimated and certified to these two companies are probably included in the lands of the Saint Paul and Pacific Railroad Company.

APPENDIX C—Continued.

A.

Act of—	Section.	Statute.	Page.	
July 1, 1862	6	12	493	"That * * * said company shall at all times transmit dispatches over said telegraph line, and transport mails, troops and munitions of war, supplies and public stores upon said railroad for the government, when required to do so by any department thereof, and that the government shall at all times have the preference in the use of the same for all the purposes aforesaid, (at fair and reasonable rates of compensation not to exceed the amounts paid by private parties for the same kind of service;)"

B.

July 25, 1866	5	14	240	"That the grants aforesaid are made upon the condition that the said railroad companies shall keep said railroad and telegraph in repair and use, and shall at all times transport the mails upon said railroad, and transmit dispatches by said telegraph line for the government of the United States when required so to do by any department thereof, and that the government shall at all times have the preference in the use of said railroad and telegraph therefor at fair and reasonable rates of compensation, not to exceed the rates paid by private parties for the same kind of service. "And said railroad shall be and remain a public highway for the use of the government of the United States free of all toll or other charges upon the transportation of the property or troops of the United States; and the same shall be transported over said road at the cost, charge and expense of the corporations or companies owning or operating the same, when so required by the government of the United States."
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C.

Mar. 3, 1871	19	16	579	"That said road shall be subject to the use of the United States for postal, military and all other governmental services at fair and reasonable rates of compensation, not to exceed the price paid by private parties for the same kind of service, and the government shall at all times have the preference in the use of the same for the purposes aforesaid."
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D.

July 27, 1866	5	14	295	"That the said company shall not charge the government higher rates than they do individuals for like transportation and telegraphic service."
	11	14	297	"That said * * * railroad or any part thereof shall be a post route and military road, subject to the use of the United States for postal, military, naval, and all other government service, and also subject to such regulations as Congress may impose restricting the charges for such government transportation."

E.

June 10, 1852	4	10	9	"And the said railroads shall be and remain public highways, for the use of the government of the United States, free from toll or other charge upon the transportation of any property or troops of the United States."
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F.

Feb. 9, 1853	4	10	156	"And the said railroad and branches shall be and remain a public highway for the use of the government of the United States, free from toll or other charge upon the transportation of any property or troops of the United States."
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APPENDIX C—Continued.

G.

Act of—	Section.	Statute.	Page.	
July 28, 1866	1	14	338	"That all property and troops of the United States shall at all times be transported over said railroad and branches at the cost, charge, and expense of the company or corporation owning or operating said road and branches respectively, when so required by the government of the United States."

H.

July 1, 1864	1	13	340	"That said railroad shall be a public highway, and shall transport troops and munitions of war of the United States free of charge."
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I.

July 26, 1866	3	14	290	"That said company, after the construction of its road, shall keep it in repair and use, and shall at all times transport troops, munitions of war, supplies, and public stores upon its road for the government of the United States, free from all cost or charge therefor to the government, when required to do so by any department thereof."
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K.

July 23, 1866	3	14	211	"That said company after the construction of its road, shall keep it in repair and use, and shall at all times be in readiness to transport troops, munitions of war, supplies and public stores upon its roads for the government when required to do so by any department thereof, the government at all times having the preference in the use of the road for all the purposes aforesaid at fair and reasonable rates of compensation, not exceeding that paid by private individuals, or the average paid for like services on other roads."
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L.

July 4, 1866	3	14	88	"And the said railroads shall be and remain public highways for the use of the government of the United States free of all toll or other charges upon the transportation of any property or troops of the United States, and the same shall at all times be transported at the cost charge and expense in all respects of the company or corporation or their successors or assigns, having or receiving the benefit of the land grants herein made."
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APPENDIX D.

List of forms issued from the Office of the Auditor of Railroad Accounts, Department of the Interior, Washington, D. C., upon which reports are required to be made by the railroad companies, under the act approved June 19, 1878.

Form number.	Sheet number.	Character of report.	When required.
1	.....	Financial condition	Monthly.
2	.....	Revenue	Do.
3	1	Ownership and control	Semi-annually.
	2	do	Do.
	3	do	Do.
4	.....	Statistical—Traffic	Monthly.
5	1	Operating and other expenses	Do.
	2	do	Do.
	3	do	Do.
	4	do	Do.
6	.....	Income expenses	Do.
7	.....	Cost of construction	Do.
8	1	Statistical—Employés	Semi-annually.
	2	do	Do.
	3	do	Do.
	4	do	Do.
9	.....	do	Do.
10	.....	do	Do.
11	.....	do	Do.
12	.....	do	Do.
13	.....	do	Do.
14	.....	Land department—Statistical	Do.
15	.....	do	Do.
16	.....	Statistical—Bridges	Do.
17	1	do	Do.
	2	do	Do.
	3	do	Do.
18	.....	do	Do.
19	.....	do	Do.

The information required upon these forms is as follows:

1. Debit and credit footings of every account in the general ledger.
2. Statement of revenue derived from all sources, giving through and way earnings and other income, by divisions.
3. On sheet 1: Name of company, date of incorporation, location of offices, consolidations with other companies, and leases of other roads. On sheet 2: Name, official title, residence, and annual salary of and the number of shares of stock owned by each officer and director. On sheet 3: Name and residence of, and the number of shares held by every other stockholder.
4. The number of through and way passengers and tons carried, the through and way mileage of loaded and empty cars, trains, free passengers—by divisions.
5. On sheet 1: Itemized statement of the expenses of transportation for passenger and freight business, by divisions. On sheet 2: Itemized statement of maintenance of way expenses—superintendence, repairs, renewals, &c.—proportioned to passenger and freight business, by divisions. On sheet 3: Itemized statement of expenses of maintenance of buildings, machinery, rolling-stock, classified according to passenger and freight business, by divisions. On sheet 4: Itemized statement of general expenses, salaries, incidentals, miscellaneous, general offices, taxes, insurance, &c., by divisions.
6. Itemized statement of interest on funded and floating debt, premiums, exchange, taxes, land expenses, dividends, &c.
7. Itemized statement of expenditures for new construction, improvements, new equipment, &c., by divisions.
8. Itemized statement of number and class of employés, and their average monthly pay, by divisions, on sheet 1. On sheet 2: Itemized statement of the quantity and cost of materials used, supplies for locomotives, cars, &c., by divisions. On sheet 3: Statements of the number of buildings, locomotives, cars, &c., repaired, by divisions. On sheet 4: Statement of miscellaneous statistics, general income, switching, government directors, taxes, insurance, &c.
9. Statement of the number, date, cause, and cost of accidents; number of passengers, employés, and others killed or injured, and of stock killed or injured.

10. Statement of funded debt and sinking funds, by classes, giving amount of interest and principal, issued, paid, and outstanding.
11. Statement of capital stock, giving number of shares authorized, subscribed for and paid for in cash or otherwise.
12. Characteristics of road—length, gauge, alignment, profile or grades, tunnels, trestles, crossings, &c.—by divisions.
13. List of locomotives and tenders, number, weight, power, operation, and condition.
14. Statement of quantity of land acquired and disposed of, giving cash and credit sales, cancellations, &c.
15. Itemized statement of receipts and expenditures of land department.
16. List of iron and wooden bridges, giving location, dimensions, class, age, date of renewal, cost, &c.
17. On sheet 1: List of passenger-cars owned, by classes. On sheet 2: List of freight-cars owned, by classes. On sheet 3: List of all other cars owned, by classes.
18. List of stocks and bonds of other railroads and corporations owned, giving cost of the same, and how paid for.
19. Itemized statement of through and local freight, giving kind, class, and quantity.

APPENDIX E.

CHAP. 96.—AN ACT to alter and amend the act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes," approved July first, eighteen hundred and sixty-two, and also to alter and amend the act of Congress approved July second, eighteen hundred and sixty-four, in amendment of said first-named act.

Whereas, on the first day of July, anno Domini eighteen hundred and sixty-two, Congress passed an act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes;" and

Whereas afterward, on the second day of July, anno Domini eighteen hundred and sixty-four, Congress passed an act in amendment of said first-mentioned act; and

Whereas the Union Pacific Railroad Company named in said acts, and under the authority thereof, undertook to construct a railway, after the passage thereof, over some part of the line mentioned in said acts; and

Whereas, under the authority of the said two acts, the Central Pacific Railroad Company of California, a corporation existing under the laws of the State of California, undertook to construct a railway, after the passage of said acts, over some part of the line mentioned in said acts; and

Whereas the United States, upon demand of said Central Pacific Railroad Company, have heretofore issued, by way of loan and as provided in said acts, to and for the benefit of said company, in aid of the purposes named in said acts, the bonds of the United States, payable in thirty years from the date thereof, with interest at six per centum per annum, payable half yearly, to the amount of twenty-five million eight hundred and eighty-five thousand one hundred and twenty dollars, which said bonds have been sold in the market or otherwise disposed of by said company; and

Whereas the said Central Pacific Company has issued and disposed of an amount of its own bonds equal to the amount so issued by the United States, and secured the same by mortgage, and which are, if lawfully issued and disposed of, a prior and paramount lien, in the respect mentioned in said acts, to that of the United States, as stated, and secured thereby; and

Whereas, after the passage of said acts, the Western Pacific Railroad Company, a corporation then existing under the laws of California, did, under the authority of Congress, become the assignee of the rights, duties, and obligations of the said Central Pacific Railroad Company, as provided in the act of Congress passed on the third of March, anno Domini eighteen hundred and sixty-five, and did, under the authority of the said act and of the acts aforesaid, construct a railroad from the city of San José to the city of Sacramento, in California, and did demand and receive from the United States the sum of one million nine hundred and seventy thousand five hundred and sixty dollars of the bonds of the United States, of the description before mentioned as issued to the Central Pacific Company and in the same manner and under the provisions of said acts; and upon and in respect of the bonds so issued to both said companies, the United States have paid interest to the sum of more than thirteen and a half million dollars, which has not been reimbursed; and

Whereas said Western Pacific Railroad Company has issued and disposed of an amount of its own bonds equal to the amount so issued by the United States to it, and secured the same by mortgage, which are, if lawfully issued and disposed of, a prior and paramount lien to that of the United States, as stated and secured thereby; and

Whereas said Western Pacific Railroad Company has since become merged in, and consolidated with, said Central Pacific Railroad Company, under the name of the Central Pacific Railroad Company, whereby the said Central Pacific Railroad Company has become liable to all the burdens, duties, and obligations before resting upon said Western Pacific Railroad Company; and divers other railroad companies have been merged in and consolidated with said Central Pacific Railroad Company; and

Whereas the United States, upon the demand of the said Union Pacific Railroad Company, have heretofore issued by way of loan to it and as provided in said acts, the bonds of the United States, payable in thirty years from the date thereof, with interest at six per centum per annum, payable half-yearly, the principal sums of which amount to twenty-seven million two hundred and thirty-six thousand five hundred and twelve dollars; on which the United States have paid over ten million dollars interest over and above all reimbursements; which said bonds have been sold in the market or otherwise disposed of by said corporation; and

Whereas said corporation has issued and disposed of an amount of its own bonds equal to the amounts so issued to it by the United States as aforesaid, and secured the same by mortgage, and which are, if lawfully issued and disposed of, a prior and paramount lien, in the respect mentioned in said acts, to that of the United States, as stated, and secured thereby; and

Whereas the total liabilities (exclusive of interest to accrue) to all creditors, including the United States, of the said Central Pacific Company, amount in the aggregate to more than ninety-six million dollars, and those of the said Union Pacific Railroad Company to more than eighty-eight million dollars; and

Whereas the United States, in view of the indebtedness and operations of said several railroad companies respectively, and of the disposition of their respective incomes, are not and cannot, without further legislation, be secure in their interests in and concerning said respective railroads and corporations, either as mentioned in said acts or otherwise; and

Whereas a due regard to the rights of said several companies respectively, as mentioned in said act of eighteen hundred and sixty-two, as well as just security to the United States in the premises, and in respect of all the matters set forth in said act, require that the said act of eighteen hundred and sixty-two be altered and amended as hereinafter enacted; and

Whereas, by reason of the premises also, as well as for other causes of public good and justice, the powers provided and reserved in said act of eighteen hundred and sixty-four for the amendment and alteration thereof ought also to be exercised as hereinafter enacted: Therefore,

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the net earnings mentioned in said act of eighteen hundred and sixty-two, of said railroad companies respectively, shall be ascertained by deducting from the gross amount of their earnings respectively the necessary expenses actually paid within the year in operating the same and keeping the same in a state of repair, and also the sum paid by them respectively within the year in discharge of interest on their first-mortgage bonds, whose lien has priority over the lien of the United States, and excluding from consideration all sums owing or paid by said companies respectively for interest upon any other portion of their indebtedness; and the foregoing provision shall be deemed and taken as an amendment of said act of eighteen hundred and sixty-four, as well as of said act of eighteen hundred and sixty-two. This section shall take effect on the thirtieth day of June next, and be applicable to all computations of net earnings thereafter; but it shall not affect any right of the United States or of either of said railroad companies existing prior thereto.

SEC. 2. That the whole amount of compensation which may, from time to time, be due to said several railroad companies respectively for services rendered for the government shall be retained by the United States, one-half thereof to be presently applied to the liquidation of the interest paid and to be paid by the United States upon the bonds so issued by it as aforesaid, to each of said corporations severally, and the other half thereof to be turned into the sinking-fund hereinafter provided, for the uses therein mentioned.

SEC. 3. That there shall be established in the Treasury of the United States a sinking-fund, which shall be invested by the Secretary of the Treasury in bonds of the United States; and the semi-annual income thereof shall be in like manner from time to time invested, and the same shall accumulate and be disposed of as hereinafter mentioned. And in making such investments the Secretary shall prefer the five per centum bonds of the United States, unless, for good reasons appearing to him, and which he shall report to Congress, he shall at any time deem it advisable to invest in other bonds of the United States. All the bonds belonging to said fund shall, as fast as they shall be obtained, be so stamped as to show that they belong to said fund, and that they are not good in the hands of other holders than the Secretary of the Treasury until they shall have been indorsed by him, and publicly disposed of pursuant to this act.

SEC. 4. That there shall be carried to the credit of the said fund, on the first day of February in each year, the one-half of the compensation for services hereinbefore named, rendered for the government by said Central Pacific Railroad Company, not applied in liquidation of interest; and, in addition thereto, the said company shall, on said day in each year, pay into the Treasury, to the credit of said sinking-fund, the sum of one million two hundred thousand dollars, or so much thereof as shall be necessary to make the five per centum of the net earnings of its said road payable to the United States under said act of eighteen hundred and sixty-two, and the whole sum earned by it as compensation for services rendered for the United States, together with the sum by this section required to be paid, amount in the aggregate to twenty-five per centum of the whole net earnings of said railroad company, ascertained and defined as hereinbefore provided, for the year ending on the thirty-first day of December next preceding. That there shall be carried to the credit of the said fund, on the first day of February in each year, the one-half of the compensation for services hereinbefore named, rendered for the government by said Union Pacific Railroad Company, not applied in liquidation of interest; and in addition thereto, the said company shall, on said day in each year, pay into the Treasury, to the credit of said sinking-fund, the sum of eight hundred and fifty thousand dollars, or so much thereof as shall be necessary, to make the five per centum of the net earnings of its said road payable to the United States under said act of eighteen hundred and sixty-two, and the whole sum earned by it as compensation for services rendered for the United States, together with the sum by this section required to be paid, amount in the aggregate to twenty-five per centum of the whole net earnings of said railroad company, ascertained and defined as hereinbefore provided, for the year ending on the thirty-first day of December next preceding.

SEC. 5. That whenever it shall be made satisfactorily to appear to the Secretary of the Treasury, by either of said companies, that seventy-five per centum of its net earnings as hereinbefore defined, for any current year, are or were insufficient to pay the interest for such year upon the obligations of such company, in respect of which obligations there may exist a lien paramount to that of the United States, and that such interest has been paid out of such net earnings, said Secretary is hereby authorized, and it is made his duty, to remit for such current year so much of the twenty-five per centum of net earnings required to be paid into the sinking-fund, as aforesaid, as may have been thus applied and used in the payment of interest as aforesaid.

SEC. 6. That no dividend shall be voted, made, or paid for or to any stockholder or stockholders in either of said companies respectively at any time when the said company shall be in default in respect of the payment either of the sums required as aforesaid to be paid into said sinking-fund, or in respect of the payment of the said five per centum of the net earnings, or in respect of interest upon any debt the lien of which, or of the debt on which it may accrue, is paramount to that of the United States; and any officer or person who shall vote, declare, make, or pay, and any stockholder of any of said companies who shall receive any such dividend contrary to the provisions of this act, shall be liable to the United States for the amount thereof, which, when recovered, shall be paid into said sinking-fund. And every such officer, person, or stockholder who shall knowingly vote, declare, make, or pay any such dividend, contrary to the provisions of this act, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by a fine not exceeding ten thousand dollars, and by imprisonment not exceeding one year.

SEC. 7. That the said sinking-fund so established and accumulated shall, at the maturity of said bonds so respectively issued by the United States, be applied to the payment and satisfaction thereof, according to the interest and proportion of each of said companies in said fund, and of all interest paid by the United States thereon, and not reimbursed, subject to the provisions of the next section.

SEC. 8. That said sinking-fund so established and accum[ul]ated shall, according to the interest and proportion of said companies respectively therein, be held for the protection, security, and benefit of the lawful and just holders of any mortgage or lien debts of such companies respectively, lawfully paramount to the rights of the United States, and for the claims of other creditors, if any, lawfully chargeable upon the funds so required to be paid into said sinking-fund, according to their respective lawful priorities, as well as for the United States, according to the principles of equity, to the end that all persons having any claim upon said sinking-fund may be entitled thereto in due order; but the provisions of this section shall not operate or be held to impair any existing legal right, except in the manner in this act provided, of any mortgage, lien, or other creditor of any of said companies respectively, nor to excuse any of said companies respectively from the duty of discharging, out of other funds, its debts to any creditor except the United States.

SEC. 9. That all sums due to the United States from any of said companies respectively, whether payable presently or not, and all sums required to be paid to the United States or into the Treasury, or into said sinking-fund under this act, or under

the acts hereinbefore referred to, or otherwise, are hereby declared to be a lien upon all the property, estate, rights, and franchises of every description granted or conveyed by the United States to any of said companies respectively or jointly, and also upon all the estate and property, real, personal, and mixed, assets, and income of the said several railroad companies respectively, from whatever source derived, subject to any lawfully prior and paramount mortgage, lien, or claim thereon. But this section shall not be construed to prevent said companies respectively from using and disposing of any of their property or assets in the ordinary, proper and lawful course of their current business, in good faith and for valuable consideration.

SEC. 10. That it is hereby made the duty of the Attorney-General of the United States to enforce, by proper proceeding against the said several railroad companies respectively or jointly, or against either of them, and others, all the rights of the United States under this act and under the acts hereinbefore mentioned, and under any other act of Congress or right of the United States; and in any suit or proceeding already commenced, or that may be hereafter commenced, against any of said companies, either alone or with other parties, in respect of matters arising under this act, or under the acts or rights hereinbefore mentioned or referred to, it shall be the duty of the court to determine the very right of the matter without regard to matters of form, joinder of parties, multifariousness, or other matters not affecting the substantial rights and duties arising out of the matters and acts hereinbefore stated and referred to.

SEC. 11. That if either of said railroad companies shall fail to perform all and singular the requirements of this act and of the acts hereinbefore mentioned, and of any other act relating to said company, to be by it performed, for the period of six months next after such performance may be due, such failure shall operate as a forfeiture of all the rights, privileges, grants, and franchises derived or obtained by it from the United States, and it shall be the duty of the Attorney-General to cause such forfeiture to be judicially enforced.

SEC. 12. That nothing in this act shall be construed or taken in any wise to affect or impair the right of Congress at any time hereafter further to alter, amend, or repeal the said acts hereinbefore mentioned; and this act shall be subject to alteration, amendment, or repeal, as, in the opinion of Congress, justice or the public welfare may require, and nothing herein contained shall be held to deny, exclude, or impair any right or remedy in the premises now existing in favor of the United States.

SEC. 13. That each and every of the provisions in this act contained shall severally and respectively be deemed, taken, and held as in alteration and amendment of said act of eighteen hundred and sixty-two, and of said act of eighteen hundred and sixty-four respectively, and of both said acts.

Approved, May 7, 1878.

APPENDIX F.

Copy of letter of the president of the Union Pacific Railroad Company.

UNION PACIFIC RAILROAD COMPANY, PRESIDENT'S OFFICE,
New York, October 8, 1878.

SIR: In reply to yours of July 1, 1878, this company has already furnished to the Department of the Interior the names and residences of its officers and directors on July 1, 1878, and the business address of the company.

In reply to the requisition that this company direct its officers to render to the department all information and reports that it may require from time to time, and to submit its books and records to your inspection, I desire to state that while this company deems the act of Congress upon which these requisitions are supposed to be based a violation of its chartered rights, yet, under protest, and without waiving in any manner those rights or the right to future objection to requisitions in detail or in principle which may be made in assumed conformity thereto, will, nevertheless, act upon each requisition as it occurs, and furnish the information desired as far as possible.

The books and records of the company will be open to your inspection, and this company will furnish transportation over its road, without expense to the United States, to you or any person appointed in writing by you, to examine the same for the purposes of the act.

Very respectfully, yours,

SIDNEY DILLON, *President*,
23 Nassau Street, Post-office Box 5446.

THEOS. FRENCH, Esq.,
Auditor of Railroad Accounts, Washington, D. C.

Copy of letter to the Vice-President of the Central Pacific Railroad Company.

DEPARTMENT OF THE INTERIOR,
OFFICE OF AUDITOR OF RAILROAD ACCOUNTS,
Washington, D. C., October 7, 1878.

SIR: An examination of the printed annual report of the board of directors of the Central Pacific Railroad Company, attached to the report of the company to the Department of the Interior, sworn to by the Hon. Leland Stanford, president, shows:

1st. That the earnings for the year ending June 30, 1878, were—

For transportation of passengers and freight, &c	\$16,844,542 50
Operating expenses.....	7,479,154 07

Which being deducted leaves net earnings.....	\$9,365,388 43
---	----------------

By the report for the same period, signed by the president of the company, the earnings are stated as.....	\$15,527,718 31
Operating expenses.....	9,988,386 67

Which being deducted leaves net earnings.....	\$5,539,331 64
---	----------------

The difference in the amount of net earnings being	\$3,826,058 79
--	----------------

I will thank you for such detailed statements of the earnings and operating expenses of the company for the twelve months ending June 30, 1878, as are necessary to an explanation of this difference.

Among the items composing the indebtedness of the company, as reported for the 30th of June, 1878, are the following: viz, bills payable, \$4,834,635.11; personal accounts, \$5,532,485.96.

I will thank you to furnish me with a detailed statement of these two items.

Very respectfully,

THEOS. FRENCH,
Auditor.

C. P. HUNTINGTON, Esq.,
Vice-President Central Pacific Railroad Company,
New York, N. Y.

Copy of reply to above letter.

CENTRAL PACIFIC RAILROAD COMPANY,
NOS. 9 NASSAU AND 11 PINE STREETS,
New York, October 19, 1878.

DEAR SIR: Yours of the 7th instant, referring to an alleged discrepancy in the report of this company, as sworn to by the president and forwarded to the Secretary of the Interior, as compared with the printed report made by the board of directors appended thereto, was received during my absence from the city.

I hasten to say in reply that the two reports do not, as you state, cover the same period of time—one of them being for the fiscal year ending 31st December, the other being for the year ending June 30, as the statute requires.

I presume, however, that the person who made the examination may have been misled—and perhaps excusably so—by an addendum on page 20 of the printed report, which is inserted for the information of stockholders—but which has really no place, perhaps, in the body of the annual report for the preceding fiscal year—of the earnings and operating expenses for the six months of the current year, by months. This you will perceive does not profess to be more than an approximation. But, in fact, the term “operating expenses,” in railroad usage, is not one of fixed or stable definition, and in this case embraces only what are known currently as “running-expenses,” such as may be computed from monthly pay-rolls, &c. By reference to the secretary’s report, on page 12, you will find a list of additional payments of expenses, such as taxes, discount, legal and miscellaneous, which are evidently not included in the monthly statements. I don’t know that it would be possible to have them appear monthly, but it is evidently a question of bookkeeping, which I do not here undertake to explain, but to direct your attention to, as they are manifestly expenses.

Upon this statement, I think you will acknowledge the error in the amount of what you are pleased to style “net earnings.” With every desire to furnish you the information you ask for, as to this, and the other items you mention, I have requested the secretary to forward them; at the same time, as already stated to you in my letter of the 8th instant, the liabilities of the company in this respect is being made the subject of a

careful examination by the law-officers of the company, and is now before the courts. Until further advised, therefore, I should be glad if you will consider such compliances on our part as somewhat out of personal respect to yourself, rather than as an acknowledgment of or denial of the authority of the so-called "Thurman act" of 1878, under which they are requested by yourself. I have no disinclination to furnish such reasonable information as the stockholders, the government, and other creditors may ask for; our objection to the attempted legislation proceeds upon far other and deeper grounds.

Very respectfully, yours,

C. P. HUNTINGTON,
Vice-President.

Hon. THEO. FRENCH,
*Auditor of Railroad Accounts, Department of the Interior,
Washington, D. C.*

Copy of letter to the vice-president of the Central Pacific Railroad Company.

DEPARTMENT OF THE INTERIOR,
OFFICE OF AUDITOR OF RAILROAD ACCOUNTS,
Washington, D. C., October 24, 1878.

DEAR SIR: Your letter of the 19th instant was received on the 21st, and would have been answered before but for my temporary absence from the city.

The explanation given in your letter as to the large difference in the amount of net earnings as stated in the printed report to the stockholders and that stated in the written report to the Secretary of the Interior is satisfactory as far as it goes. The error in the "approximation" of June business, and in the items of expense similar to those on page 12 of the secretary's report, such as taxes, discount, legal, and miscellaneous expenses, may or may not account for the difference; but, whether they will or not, it can be readily perceived that a detailed statement of such expenses is necessary to a full and proper explanation of the large differences shown in my previous letter, and I shall be pleased to have such detailed explanation as soon as the secretary of the company forwards it to you upon your request as stated.

In this connection I beg to call your attention to the following comparison of earnings and operating expenses, and of net earnings deduced therefrom, as shown by the written reports to this department for the years ending June 30, 1877 and 1878, which is as follows:

	1877.	1878.
Passenger earnings	\$5,563,870 07	\$5,367,663 20
Freight earnings	10,095,349 87	10,160,055 20
Total	15,650,219 94	15,527,718 31
Operating expenses	8,326,614 21	9,988,336 67
Net earnings June 30, 1877	7,332,605 73	June 30, 1878, 5,530,331 64
Differences:		
Revenues, decrease		\$131,501 63
Expenses, increase		1,661,772 46
Net earnings, decrease		1,793,274 09

And yet, from your annual report to stockholders, there does not appear to be any such large falling off in net earnings.

In order that there may be no misunderstanding between the officers of your company and this department, allow me to say that any information furnished in compliance with the requirements of the act of Congress entitled "An act to create an Auditor of Railroad Accounts, and for other purposes," approved June 19, 1878, is not and will not be taken as either an acknowledgment or denial of the authority or constitutionality of the so-called "Thurman act of 1878," under which no requirements have yet been made by this office upon any railroad company. The act under which this bureau is operating is entirely independent of what you denominate "the so-called Thurman act of 1878," if that is understood to be the sinking-fund act approved May 7, 1878, and the acts of 1862 and 1868 having been repealed, so far as they relate to reports to be rendered by the Pacific railroad companies, the act of June 19, 1878, is the only one in force.

Very respectfully,

THEOS. FRENCH,
Auditor.

C. P. HUNTINGTON, Esq.,
Vice-President Central Pacific Railroad Company, New York, N. Y.

Copy of reply.

CENTRAL PACIFIC RAILROAD COMPANY,
NOS. 9 NASSAU AND 11 PINE STREETS,
New York, November 1, 1878.

DEAR SIR: Your letter of the 24th, calling my attention to certain figures contained in the reports made by this company to the Department of the Interior, was duly received. My absence from the city has prevented an earlier reply.

In regard to the alleged disagreement of the figures in the written reports, when compared with those for the fiscal year in print, I must refer your communication to the secretary of the company, with whom the matter properly belongs. I have not the leisure to go over the accounts of the two years in detail; but from a cursory examination, I conclude that the apparent increase in operating expenses in the latter period is already explained in my letter of the 19th ult. Your examiner has probably fallen into the same error as before, of reckoning the monthly exhibits of current expenses as the whole cost, making no allowance for such items as are supplemented on page 12 of the printed report, such as taxes (municipal, State, and national), legal, engineering, miscellaneous, losses by land department, &c., some of which, from their nature, cannot be stated with precision month by month, and others of which, for convenience in keeping accounts, are charged up at the end of the fiscal year. I think it likely that in trying to segregate a portion of the year so as to compare the figures with those required by the department for a different period, these items have been omitted, although they are as legitimately part of the expenses of operation and management as are the monthly pay-rolls or fuel.

Referring to that portion of your letter relating to the authority under which this information is called for, I am glad to be informed definitely, that your requests are based upon the act of June 19, 1878, purporting "to create the office of auditor of railroad accounts," &c., and not under the act of May 7th, familiarly known as the "Pacific Railroad sinking-fund act." I was aware that two acts touching the Pacific roads had been adopted during the last session, and that Senator Thurman was the putative parent of both, as I was also that these constituted about his only business, and occupied his time nearly the whole winter. Hence, when I desired in a former letter to guard against admitting, or denying, the authority of either of them, it was a slip of the pen rather than of the memory, which made me say "the so-called Thurman act of 1878." I should have used the plural, and ought to have said; "the Thurman acts of 1878."

So far as concerns your own relations to your employer, the United States Government, it makes no difference, to yourself whether these two questionable acts shall prove to be valid, as against this and other companies or not. It has not unfrequently happened that a majority of the Congress has acted without due deliberation, upon *ex parte* statements, or misinformation, and has placed upon the statute-book laws which it has been as prompt to repeal, when it became evident that they trenched upon vested rights, had a mischievous tendency, or transcended the limits prescribed by the Constitution. I am not without hope that such will be the result in the cases of these two acts.

Aside from this voluntary remedial justice, under the theory of our government, a revisory power over the action of the Congress has been lodged with the judicial branch, and experience has repeatedly shown that this is a fortunate provision for the maintenance of the cause of justice and liberty. It may become, therefore, not only the privilege, but also a solemn duty, at times to invoke the scrutiny of the court into this species of legislation. Acting under a sense of duty to the shareholders and creditors of this company, the directors have requested the opinion of eminent counsel as to the probable validity of these two acts, and upon their guidance it is proper that we should rely.

The act of June 19, under which I now understand you to be acting, was regarded at the moment of its adoption (for it never received any deliberative attention) as a necessary sequel to the prior act of May 7, and as something intended to make good its deficiencies. So far as they both were not the outgrowth of an inordinate personal ambition and political vanity, they are the offspring of a mistaken policy in dealing with the several Pacific railroad companies, into the origin and history of which it is needless now to enter. They may be looked upon as merely the first of a series of supplementary and pursuing acts passed and to be passed, if that policy is to be adhered to, in the vain endeavor to compel this and other Pacific railroad companies to do that under compulsion which they are at all times ready to do whenever those who for the time being, represent the government are willing that the rights and equities of both parties shall be respected and taken into account. In other words, the time and machinery of the Congress is to be taken up in the exercise of a sovereign power to meet the views of certain pragmatic personages, in order to effect a just and equitable settlement of a complicated business matter which a court of chancery or a board

of arbitration could satisfactorily dispose of in an afternoon's session. The companies have offered to submit the differences to impartial arbitration, or to anticipate this future indebtedness by payments of fixed sums, at stated times, in discharge and satisfaction of all pending disputes.

Neither method has thus far proved acceptable to a majority in Congress; but rather than do nothing, it has seen fit to resort to the sovereign power to enforce its own construction of a contract, regardless of the express stipulations under which the contract was made and executed, the work performed under it, or the equities to be considered. It has come to my knowledge that very many who favored its passage, as well as those who opposed it, did so with the expectation that it would be resisted and a successful appeal taken to the Supreme Court. Under these circumstances, therefore, you will see the company are standing on their undoubted right, and are asking no more time than is reasonable in which to determine the extent to which they may properly comply with your requests. For the present, therefore, they would be glad if you would regard any compliance therewith as tendered, on the part of this company, without prejudice to their position, and as due to the authority under acts prior to 1878, until they shall have been advised whether to contest these two acts for invalidity. In the event that the sufficiency of the authority is conceded by counsel, or established by the courts, the company will, of course, pay all due respect thereto.

I notice that the act of June 19, under which this information is called for, is cunningly worded, so as to appear to be a merely formal amendment of the several Pacific Railroad acts, and as such was undoubtedly so understood when it was passed. Following the innocent section relative to the filing of reports, under the acts of 1862 and 1868, and the subsequent section creating a new auditor's office in the Interior Department, come two sections enlarging upon any legislative authority heretofore attempted in regard to railroads. Instead of being confined to the so-called "Pacific Railroads," the third and fourth sections impose new duties and obligations upon the railroad companies "whose roads are, in whole or in part, west, north, or south of the Missouri River, and to which the United States have granted any loan of credit or subsidy in bonds or lands." This act, under your ruling, is made to embrace some forty-six companies, many of which have no connection with the Pacific Railroad acts, and others which have no other relation to the Federal Government than the receipt of lands upon the execution of a contract long ago satisfied and discharged.

It may not have occurred to you, as it probably did not to the author, to ask, Whence does Congress derive its authority to set up a claim of perpetual surveillance and punishment over railroad companies not of its own creation, but existing and exercising their functions independently of it? This attempt to stretch the power of Congress beyond its designated pole resembles a first step toward setting up a bureau for the supervision and regulation of all the railroads in the country—an ambition dear to the hearts of one or two soaring political aspirants—is one which will surprise many of those whose passive presence allowed it to appear upon the statute-book. At any rate, it is altogether too far-reaching and important a subject to be smuggled into the policy of the government under the guise of changing the manner of making the reports originally required in the covenant which secured the construction of the first Pacific Railroad. The circumstance that the Congress has, in past times, in pursuance of its then prevailing policy of opening up highways through the public domain, for the better encouragement of migration and commerce, as well as for the public defense and convenience, seen fit to offer alternate sections of lands to railroad companies as aids and inducements to hasten the work, thereby multiplying the value and utility of the ungranted lands, confers no authority upon Congress to impose new obligations and penalties upon the companies, nor to exercise supervision over their affairs. Especially is this not the case where the corporations derive their existence and authority from the States, and where the work has been duly performed and the account closed. The cases of the Pacific Railroads proper, whose companies received, in addition, a loan of United States bonds for a period of thirty years upon certain specified terms, is the same in principle. The service on one side has been, and is being, duly performed. Congress acquired no right to vary its requirements, nor to change the essence or substance of the contract, nor to exceed the stipulations and forfeitures by this grant. To pretend that under the power of amendment, vested rights can be destroyed, private property taken for public use without due process of law, and without just compensation; that the government can take advantage of its sovereign character to annul contracts, or enforce its own construction of them, is a doctrine so alarming, so revolutionary, and withal so needlessly inopportune, that we consider it to be the part of good citizenship, as well as in the interest of good government, to use the authority placed in us to have so grave a question judicially sifted and determined before we can yield cheerful obedience thereto.

Since the receipt of your several requisitions for information beyond that called for prior to 1878, I have procured an authenticated copy of the act put forward as your

authority therefor, and have submitted the same to counsel, and am awaiting their advice thereon.

Very respectfully, yours, &c.,

C. P. HUNTINGTON,
Vice-President.

Hon. THEOS. FRENCH,
Auditor Department of the Interior.

Copy of acknowledgment of above.

DEPARTMENT OF THE INTERIOR,
OFFICE OF AUDITOR OF RAILROAD ACCOUNTS,
Washington, D. C., November 4, 1878.

DEAR SIR: Your letter of the 1st instant has been received and placed on file in this office.

Very respectfully,

THEOS. FRENCH,
Auditor.

C. P. HUNTINGTON, Esq.,
Vice-President Central Pacific Railroad Company, New York, N. Y.

APPENDIX G.

Statement of profit and loss for the year 1876.

CENTRAL PACIFIC RAILROAD COMPANY.

DR.

CR.

To Interest.....	\$3,395,468 12	By Balance January 1, 1876	\$10,305,953 00
Taxes.....	340,508 72	Earnings for year	
General and miscellaneous ex- penses.....	469,327 74	1876	\$16,994,216 30
Legal expenses	193,758 59	Less expense of op- erating.....	7,857,211 57
Civil engineering	21,867 78		9,137,004 73
Discount on currency receipts ..	670,528 25	Interest on sinking-funds	176,214 35
Dividends Nos. 5 and 6.....	4,342,040 00	Operating river steamers and barges	79,916 39
Balance	10,265,589 27		
	<u>19,699,088 47</u>		<u>19,699,088 47</u>
		January 1, 1877, balance brought down	10,265,589 27

Statement of profit and loss for the year 1877.

CENTRAL PACIFIC RAILROAD COMPANY.

DR.		CR.	
To Interest.....	\$3,716,983 65	By Balance January 1, 1877.....	\$10,265,589 27
Taxes.....	330,345 62	Earnings for year	
General and miscellaneous ex- penses.....	482,358 53	1877.....	\$16,471,144 11
Legal expenses.....	146,112 04	Less expense of op- erating.....	7,774,417 76
Civil engineering.....	22,045 46		8,696,726 35
Discounts on currency receipts.....	310,397 39	Interest on sinking funds.....	189,247 72
Dividends Nos. 7 and 8.....	4,342,040 00	Operating river steamers and barges.....	64,537 27
Land department ex- penses to date.....	\$420,159 59	California Pacific Railroad to June 30, 1877.....	\$1,326,632 60
Less sales.....	406,549 29	Less expense of op- erating.....	819,806 37
	13,610 30		506,826 23
Stockton & Copperop- olis Railroad expen- ses to June 30.....	\$174,635 32	572 land-grant bonds redeemed with proceeds of land sales ...	572,000 00
Less earnings.....	166,453 95		
	8,181 37		
Leased railroads (coin).....	2,236,927 51		
Leased railroads (currency).....	29,258 95		
Balance.....	8,656,466 02		
	20,294,926 84		20,294,926 84
		January 1, 1878, balance brought down	8,656,466 02

N. B.—It will be observed that taxes, general and miscellaneous, and legal expenses are not included in operating expenses in the foregoing statements.

APPENDIX H.

Statement of the accounts between the United States and the Pacific railroads on account of bonds and interest to June 30, 1878.

Titles of companies.	Indebtedness of companies, bonds and interest.			Amounts repaid and withheld.			Balance of indebtedness.
	Principal.	Interest.	Total.	Covered into the Treasury.		Total.	
				One-half of transportation applied to the payment of bonds and interest.	One half of transportation withheld on account of 5 per cent. of net earnings.		
Union Pacific Railroad Company.....	\$27,236,512 00	\$16,786,896 81	\$44,023,408 81	\$4,105,179 45	\$1,747,691 50	\$7,364,364 05	\$36,659,044 76
Central Pacific Railroad Company	25,885,120 00	15,687,019 27	41,572,139 27	1,529,301 83	814,357 71	2,807,289 16	38,764,850 11
Western Pacific Railroad Company	1,970,560 00	1,077,080 94	3,047,640 94	9,365 75	1 25	9,367 00	3,038,273 94
Kansas Pacific Railway Company.....	6,303,000 00	4,238,433 09	10,541,433 09	1,307,469 49	225,060 93	2,323,076 15	8,218,356 94
Central Branch Union Pacific Railroad Company.	1,600,000 00	1,069,808 26	2,669,808 26	43,075 13	24,423 22	69,794 35	2,600,013 91
Sioux City and Pacific Railroad Company.....	1,628,320 00	975,801 49	2,604,121 49	39,321 06	36,196 93	83,186 92	2,520,934 57
Total	64,623,512 00	39,835,039 86	104,458,551 86	7,033,712 71	2,847,731 54	12,657,077 63	91,801,474 23

Amount of compensation withheld by the United States on account of the Denver Pacific Railway and Telegraph Company, as shown by the books of the company.

Title of company.	Total.		
	Post-Office Department.	Quartermaster's Department.	Interior Department.
Denver Pacific Railway and Telegraph Company	\$102,807 85	\$31,318 67	\$107 70
			\$134,234 32

APPENDIX I.

Extract from Poor's Manual of Railroads for 1878, showing equipment, capital, cost, and revenue of all railroads of the United States, for the calendar year 1877, on the unitary standard of 100 miles.

Items.	All other roads.	Union Pacific and Central Pacific Railroads.
Side tracks.....miles..	23	12
Locomotives used.....number..	20	17
Passenger-cars used.....do..	15	16
Baggage, mail, and express cars used.....do..	5	4
Freight-cars used.....do..	500	357
Capital stock.....	\$2,888,541 00	\$4,488,807 00
Funded debt.....	2,722,523 00	7,159,537 00
Other debt.....	291,169 00	560,944 00
Cost of road and equipment.....	5,089,602 00	12,232,339 00
Gross earnings.....	620,479 00	1,044,483 00
Operating expenses.....	400,968 00	556,704 00
Net earnings.....	219,511 00	487,779 00
Interest paid on bonds.....	122,041 00	308,585 00
Per cent.....	4.48	4.31
Dividends paid on capital stock.....	\$66,648 00	\$324,205 00
Per cent.....	2.31	8.00

APPENDIX K.

Statement, from Poor's Manual of Railroads for 1878, showing the mileage, equipment,

Items.	In the New Eng- land States.	In the Middle States.	In the Southern States.	In the Western States.
Length of lines.....miles..	5,750.32	14,459.48	13,744.09	40,742.75
Sidings, &c.....do....	1,943.58	8,302.43	1,090.10	6,262.69
Engines.....number..	1,611	5,322	1,798	6,533
Passenger-cars.....do....	2,210	4,744	1,105	3,314
Baggage, mail, and express cars do....	599	1,100	490	1,528
Freight-cars.....do....	29,804	183,240	24,356	140,913
Capital stock.....	\$209,402,676 00	\$706,203,195 00	\$263,848,572 00	\$974,549,821 00
Funded debt.....	111,919,422 00	702,755,833 00	222,495,198 00	999,520,205 00
Other debt.....	21,732,215 00	64,482,069 00	25,778,973 00	102,229,537 00
Total.....	343,054,313 00	1,473,441,097 00	512,122,743 00	2,076,299,563 00
Cost of railroad and equipment.....	\$313,233,185 00	\$1,084,650,055 00	\$484,228,330 00	\$1,906,871,952 00
Miles of road operated.....	6,038.98	13,405.06	11,389.53	39,135.96
Gross earnings.....	\$44,590,465 00	\$154,728,091 00	\$40,449,196 00	\$193,204,516 00
Working expenses.....	30,854,719 00	94,031,516 00	27,668,782 00	127,119,273 00
Net earnings.....	13,735,746 00	60,696,575 00	12,780,414 00	66,085,243 00
Interest paid on bonds.....	\$5,426,393 00	\$36,983,957 00	\$6,297,305 00	\$39,754,796 00
Per cent.....	4.85	5.26	2.83	3.98
Dividends paid on stock.....	\$6,977,726 00	\$24,734,232 00	\$2,757,153 00	\$14,556,462 00
Per cent.....	3.33	3.50	1.05	1.49

APPENDIX K.

capital, cost, and revenue of all the railroads of the United States for the year 1877.

In the Pacific States and Territories.	Total other than the Union and Central Pacific Railroads.	Union Pacific Railroad.	Central Pacific Railroad.	Total of Union and Central Pacific Railroads.	Total United States.
2,265.96	76,962.60	1,042.40	1,203.35	2,245.75	79,208.35
221.85	17,820.65	110	169.44	279.44	18,099.49
261	15,525	168	228	396	15,911
320	11,693	128	232	360	12,053
57	3,774	41	39	80	3,854
5,837	384,150	3,104	4,921	8,025	392,175
\$68,236,534 00	\$2,222,240,798 00	\$36,762,300 00	\$54,275,500 00	\$91,037,800 00	\$2,313,278,598 00
57,844,800 00	2,094,515,458 00	78,062,512 00	82,740,680 00	160,803,192 00	2,255,318,650 00
10,783,160 00	225,005,954 00	1,000,000 00	11,598,820 00	12,598,820 00	237,604,774 00
136,864,494 00	4,541,762,210 00	115,824,812 00	148,615,000 00	264,439,812 00	4,806,202,022 00
\$126,699,875 00	\$3,915,683,397 00	\$118,198,755 00	\$146,309,575 00	\$264,508,330 00	\$4,180,191,727 00
1,896.38	71,865.91	1,042.40	1,203.35	2,245.75	74,111.66
\$7,766,922 00	\$440,739,190 00	\$12,948,476 00	\$19,221,606 00	\$32,170,082 00	\$472,909,272 00
5,111,785 00	284,786,075 00	5,552,092 00	11,564,408 00	17,146,500 00	301,932,575 00
2,655,137 00	155,953,115 00	7,396,384 00	7,657,198 00	15,023,582 00	170,976,697 00
\$3,427,643 00	\$91,890,094 00	\$3,484,765 00	\$3,446,068 00	\$6,930,833 00	\$98,820,927 00
5.92	4.48	4.46	4.16	4.31	4.39
\$249,099 00	\$51,274,672 00	\$2,939,600 00	\$4,342,040 00	\$7,281,640 00	\$58,556,312 00
0.37	2.31	8.00	8.00	8.00	2.53

NOTE TO APPENDIX L.

Methods of ascertaining the proportion of rates remaining to railroad companies after deducting "a fair sum for use of roadway."

Massachusetts formula:
$$\frac{\text{Transportation expenses.}}{7 \text{ per cent. of cost of construction} + \text{total operating expenses.}}$$

The impracticability of this formula lay in the fact that very few, if any, railroads pay seven per cent. or even one-half of that percentage, on their cost.

Massachusetts compromise:
$$\frac{\text{Transportation expenses.}}{\text{Earnings, less amount paid to leased lines.}} + 6.$$

The objection to this formula is that it is based rather upon guess than upon fact; and, further, that it does not appear that there is any reasonable relationship between "six per cent. of gross earnings as rent of equipment" and the actual value of such rental.

Proposed formula:
$$\frac{\text{Transportation expenses} + 6 \text{ per cent.}^* \text{ of cost of equipment.}}{\text{Earnings, less amount paid to leased lines.}}$$

Proposed formula + 10 %:
$$\frac{\text{Transportation expenses} + 6 \text{ per cent.}^* \text{ of cost of equipment.}}{\text{Earnings, less amount paid to leased lines.}} \times 1.10.$$

* The rate per cent. of interest, or rent for rolling-stock, would, of course, vary with the rates current in different States and sections.

APPENDIX M.

Amounts paid for transportation of mail to railroads coming under act 121, approved June 19, 1878.

	Title of company.	Termini.	Number of miles.	1878-'79.
				Pay per annum.
1	Union Pacific Railroad Company	Council Bluffs—Ogden	1,035.20	\$335,174 86
2	Central Pacific Railroad Company	San Francisco—Ogden	884.23	225,061 30
3	Kansas Pacific Railway Company	Kansas City—Denver	639.00	81,651 00
4	Sioux City and Pacific Railroad Company	Missouri Valley—Sioux City—California Junction—Wisner.	159.40	10,392 51
5	Central Branch Union Pacific Railroad Company.	Atchison—Waterville	100.00	8,500 00
6	Denver Pacific Railway and Telegraph Company.	Denver—Cheyenne	106.00	13,544 75
7	Texas and Pacific Railway Company	Shreveport—Fort Worth—Texarkana.	449.92	41,632 71
8	Southern Pacific Railroad Company	San Francisco—Soledad—Tres Pinos.	214.35	14,078 69
9	Northern Pacific Railroad Company	Duluth—Fargo—Bismarck ..	447.53	23,834 80
10	Saint Louis and San Francisco Railway Company.	Pacific, Mo.—Vinita	327.25	25,741 49
12	Burlington and Missouri River Railroad Company in Nebraska.	Plattsmouth—Kearney Junction.	190.80	17,292 20
13	Oregon and California Railroad Company	Portland—Roseburgh	199.10	18,896 58
14	Oregon Central Railroad Company	Portland—Saint Joseph	48.61	2,078 07
15	Hannibal and Saint Joseph Railroad Company.	Quincy—Saint Joseph	218.50	34,714 71
16	Saint Louis, Iron Mountain and Southern Railway Company.	Saint Louis—Bismarck—Texarkana.	497.98	93,634 07
17	Little Rock and Fort Smith Railway Company	Argenta—Fort Smith	169.00	9,959 33
18	Memphis and Little Rock Railroad Company	Hopefield—Little Rock	134.21	12,576 81
19	Missouri, Kansas and Texas Railway Company.	Hannibal—Dennison	590.30	98,200 30
20	Atchison, Topeka and Santa Fé Railroad Company.	Atchison—Pueblo	646.54	72,974 43
21	Leavenworth, Lawrence and Galveston Railroad Company.	Lawrence—Coffeyville	140.80	8,379 00
23	Saint Joseph and Western Railroad Company.	Elwood—Hastings	226.50	14,525 44
24	Northern Louisiana and Texas Railroad Company.	Vicksburg—Monroe	76.16	3,542 96
25	(Morgan's) Louisiana and Texas Railroad Company.	New Orleans—Morgan City.	80.07	5,860 32

APPENDIX L.

Statement showing amount to be deducted under various formulas from freight and passenger rates for the use of a railroad, free of toll or other charge, as applied to different railroads for illustration.

	Date of report.	Miles of road operated.	Stock and debt.					Cost of construction.	Cost of equipment.	Earnings.						Operating expenses.						Government deduction, per cent.		Dividends.				
			Stock.			Debt.	Total.			Passenger.	Freight.	Miscellaneous.	Total.	Less amount paid to leased lines.	Applicable to this calculation.	Maintenance of way.			Transportation expenses.			Total.	Massachusetts formula.	Massachusetts compromise.	Transportation expenses + 6 per cent. †	Transportation expenses + 6 per cent., + 10 per cent. for profit.	On preferred stock.	On total stock.
			Common.	Preferred.	Total.											Repairs of track, bridges, buildings, &c.	Taxes on real estate, roadway, &c.	Total.	Traffic expenses.	Taxes on equipment.	Total.							
Eight Massachusetts railroads	Sept. 30, '77	1,566½	\$69,902,675	.....	\$69,902,675	\$40,867,234	\$110,769,909	\$84,599,881	\$8,536,794	\$8,671,220	\$9,037,397	\$1,640,637	\$19,349,254	\$664,269	\$18,684,985	\$2,996,980	\$679,500	\$3,676,480	\$9,511,971	\$75,500	\$9,587,471	\$13,263,951	50.03	42.69	45.95	40.55	.....	4.05
New York Central and Hudson River Railroad	Sept. 30, '77	1,000½	89,428,300	.....	89,428,300	40,335,445	129,763,745	81,252,181	17,890,227	6,576,816	16,424,316	3,577,953	26,579,085	1,945,572	24,633,513	1,606,017	850,098	2,456,115	12,490,047	.....	12,490,047	14,946,162	39.47	43.30	44.94	39.44	.....	8.00
Erie Railway	Sept. 30, '77	956½	.....	.....	86,536,910	56,159,030	142,695,940	103,389,634	14,055,486	3,220,090	10,647,807	1,291,775	15,159,672	736,648	14,423,024	2,027,602	267,927	2,295,529	9,056,618	.....	9,076,041	11,371,570	51.23	31.07	31.23	24.36	.....	.....
Pennsylvania Railroad	Dec. 31, '77	1,055	.....	.....	68,870,200	68,073,844	136,944,044	43,847,787	14,615,929	3,383,273	14,719,396	1,226,507	19,329,176	588,785	18,740,391	2,123,316	157,398	2,280,714	8,539,904	.....	8,539,904	10,820,618	38.52	48.43	49.75	44.74	.....	3.50
Three railroads .....	.....	3,012	.....	.....	244,835,410	164,568,319	409,403,729	238,489,602	46,561,642	13,180,179	41,791,519	6,096,235	61,067,933	3,271,005	57,796,928	5,756,935	1,275,423	7,032,358	30,086,569	19,423	30,105,992	37,138,350	44.08	41.91	43.68	37.39	.....	.....
Atlantic and Great Western Railroad	June 20, '77	512	24,799,554	\$9,876,250	34,675,804	75,916,908	110,592,712	77,208,704	4,063,616	762,781	2,701,662	157,247	3,621,690	311,425	3,310,265	676,494	106,671	783,165	2,547,938	11,852	2,559,790	3,342,955	70.74	16.67	15.31	6.84	.....	.....
Chicago and Northwestern Railway	May 31, '78	1,574½	14,988,897	21,525,603	36,514,410	34,274,469	70,788,879	62,752,861	8,285,373	2,978,729	10,016,921	588,197	13,583,847	1,213,219	12,370,628	1,682,113	276,465	1,958,578	4,748,761	48,787	4,797,548	6,756,126	56.97	55.22	57.20	52.92	7	5.35
Chicago, Rock Island and Pacific Railroad	Mar. 31, '78	1,003	20,980,000	.....	20,980,000	9,998,100	30,978,100	28,110,121	5,500,000	1,846,654	5,573,733	468,226	7,890,613	125,000	7,765,613	1,245,186	247,401	1,492,587	2,891,927	.....	2,891,927	4,384,514	54.48	56.76	58.51	54.36	.....	10.00
Chicago, Milwaukee and Saint Paul Railway	Dec. 31, '77	1,403	15,404,261	12,279,483	27,683,744	30,519,155	58,202,899	51,886,833	5,000,000	1,780,169	5,627,906	706,819	8,114,894	.....	8,114,894	1,197,482	255,943	1,453,425	2,992,991	45,166	3,038,157	4,491,582	62.60	56.56	58.87	54.76	7	3.10
Chicago, Burlington and Quincy Railroad	Dec. 31, '77	1,482	.....	.....	27,644,916	31,640,877	59,285,793	53,384,340	9,446,499	2,463,400	9,534,544	533,510	12,551,454	175,000	12,376,454	1,817,672	261,727	2,079,399	5,164,879	65,431	5,230,310	7,309,709	52.65	51.74	53.16	48.48	.....	9.00
Four railroads .....	.....	5,463	.....	.....	112,823,070	106,432,601	219,255,671	196,134,155	28,231,872	9,088,952	30,755,104	2,296,752	42,140,808	1,513,219	40,627,589	5,942,453	1,041,536	6,983,989	15,798,558	159,384	15,957,942	22,941,931	56.49	54.73	56.55	52.21	.....	.....
Saint Louis and San Francisco Railway	Dec. 31, '77	326	8,069,200	13,220,408	21,289,608	5,278,982	26,568,590	25,734,718	1,000,000	230,242	1,023,910	69,791	1,323,943	.....	1,323,943	213,138	24,525	237,663	371,678	2,725	374,403	612,966	84.49	65.72	67.19	63.91	.....	.....
Saint Louis, Iron Mountain and Southern Railway	Dec. 31, '77	684½	.....	.....	21,471,151	30,002,745	51,473,896	41,945,635	3,015,100	1,108,668	3,208,750	183,004	4,500,422	.....	4,500,422	553,718	81,407	635,126	1,724,350	9,045	1,733,395	2,368,521	67.33	55.49	57.47	53.22	.....	.....
Missouri, Kansas and Texas Railway	Dec. 31, '77	787	21,405,000	124,044	21,529,044	24,773,265	40,994,078	40,994,078	1,671,600	832,676	2,176,275	188,370	3,197,321	.....	3,197,321	736,928	86,808	823,736	1,298,005	9,645	1,307,650	2,131,386	73.85	53.10	55.96	51.56	.....	.....
Three railroads .....	.....	1,797	.....	.....	64,289,803	60,054,992	124,344,795	108,674,431	5,686,700	2,171,586	6,408,935	441,165	9,021,686	.....	9,021,686	1,503,784	192,740	1,696,525	3,394,033	21,415	3,415,448	5,111,973	73.16	56.25	58.37	54.21	.....	.....
Illinois Central Railroad	Dec. 31, '77	1,107	.....	.....	29,000,000	10,508,000	39,508,000	28,829,173	6,031,600	1,440,974	4,555,405	686,943	6,683,322	587,913	6,095,409	774,008	53,269	827,268	2,664,787	13,315	2,678,102	3,505,370	51.52	50.07	50.13	45.15	.....	4.00
Michigan Central Railroad	May 31, '77	804	.....	.....	18,738,204	13,598,213	32,336,417	23,551,646	4,734,100	2,026,265	4,158,887	312,974	6,498,126	.....	6,498,126	806,963	213,537	1,020,500	3,632,558	53,384	3,685,942	4,706,442	42.00	35.62	37.12	30.84	.....	2.00
Two railroads .....	.....	1,911	.....	.....	47,738,204	24,106,213	71,844,417	52,380,819	10,765,700	3,467,239	8,714,292	999,917	13,181,448	772,143	12,409,305	1,580,971	266,797	1,847,768	6,297,345	66,699	6,364,044	8,211,812	46.43	42.72	43.51	37.86	.....	.....
Kansas Pacific Railway	June 30, '78	673	.....	.....	9,689,950	33,161,167	42,851,117	32,359,540	2,000,000	918,841	2,348,388	32,808	3,300,037	.....	3,300,037	726,782	112,500	839,282	1,399,050	12,500	1,411,550	2,250,832	68.75	51.23	53.59	48.95	.....	.....
Denver Pacific Railway	Dec. 31, '77	106½	.....	.....	4,000,000	6,560,487	6,560,487	6,388,650	106,700	106,633	161,950	33,263	301,846	.....	301,846	43,958	24,244	68,202	103,427	1,000	104,427	172,629	83.16	59.41	63.28	59.61	.....	.....
Two railroads .....	.....	779	.....	.....	13,689,950	35,721,654	49,411,604	38,748,196	2,106,700	1,025,474	2,510,338	66,071	3,601,883	.....	3,601,883	770,740	136,744	907,484	1,502,477	13,500	1,515,977	2,423,461	70.48	51.92	54.40	49.84	.....	.....
Union Pacific Railroad	Dec. 31, '77	1,042	.....	.....	36,762,300	88,897,986	125,660,286	104,922,888	10,291,700	3,599,757	7,597,680	1,338,170	12,535,607	.....	12,535,607	1,694,783	243,919	1,938,702	3,291,676	43,044	3,334,720	5,273,422	73.57	67.40	68.47	65.32	.....	8.00
Central Pacific Railroad	June 30, '77	1,213	.....	.....	54,275,500	94,675,939	148,951,439	136,584,437	7,656,518	5,563,870	10,095,350	1,326,706	16,985,926	985,267	16,000,659	2,073,592	306,459	6,248,045	34,050	6,282,095	8,662,146	65.53	54.74	57.87	53.66	.....	8.00	
Two railroads .....	.....	2,255	.....	.....	91,037,800	183,573,925	274,611,725	241,507,325	17,948,218	9,163,627	17,693,030	2,664,876	29,521,533	985,267	28,536,266	3,768,375	550,378	4,318,753	9,539,721	77,094	9,616,815	13,935,568	68.82	60.30	62.53	58.79	.....	.....
Atchison, Topeka and Santa Fé Railroad	*1874 to 1877	623	.....	.....	8,615,000	15,504,027	24,119,027	22,157,202	1,224,160	533,466	1,373,576	77,171	1,984,213	171,010	1,813,203	240,973	95,380	336,353	745,854	5,732	751,586	1,087,939	71.56	52.55	54.48	49.93	.....	.....
Texas and Pacific Railroad	May 31, '78	444	.....	.....	7,018,500	20,247,978	27,266,478	25,271,140	1,269,100	592,694	1,660,645	77,971	2,331,310	.....	2,331,310	484,527	51,879	536,406	1,059,448	5,764	1,065,212	1,601,618	55.07	48.31	51.04	46.15	.....	.....
Chicago and Alton Railroad	Dec. 31, '77	678	10,065,400	2,425,472	12,490,872	9,188,359	21,679,231	17,933,178	3,840,500	1,211,852	3,067,769	184,722	4,464,343	523,966	3,940,377	663,045	.....	663,045	1,693,961	.....	1,693,961	2,357,006	53.11	51.01	51.16	46.28	.....	7.50
Pittsburgh, Fort Wayne and Chicago Railroad	Dec. 31, '77	468	19,714,285	5,504,300	25,218,585	13,510,000	38,728,585	31,884,586	6,844,200	1,779,498	4,790,424	358,934	6,928,856	.....	6,928,856	904,121	181,879	1,086,000	2,978,398	.....	2,978,398	4,064,398	52.70	51.02	51.09	46.20	.....	7.00
Two railroads .....	.....																											

* Average four years.

† Six per cent. per annum on cost as rental of equipment, rolling-stock, &c., is subject to increase according to current rates of interest and location of road in the different sections of the country.

(Aud. R. R. Accounts.)

Amounts paid for transportation of mail to railroads, &c.—Continued.

	Title of company.	Termini.	Number of miles.	1878-'79.
				Pay per annum.
26	Chicago, Burlington and Quincy Railroad Company.	Burlington—Council Bluffs..	347. 14	\$56, 294 62
27	Chicago, Rock Island and Pacific Railroad Company.	Davenport—Missouri River	318. 00	62, 590 44
28	Cedar Rapids and Missouri River Railroad Company.	Cedar Rapids—Union Pacific Transfer.	272. 60	63, 944 43
29	Dubuque and Sioux City Railroad Company	Dubuque—Sioux City.....	327. 12	27, 968 76
30	Iowa Falls and Sioux City Railroad Company.			
31	Sioux City and Saint Paul Railroad Company	Saint James—Lemars.....	122. 83	6, 721 25
32	Chicago, Milwaukee and Saint Paul Railway Company.	Minneapolis—North McGregor.	215. 43	18, 424 49
		Hastings—Glencove.....	74. 59	2, 040 78
33	Wisconsin Central Railroad Company.....	Calmar—Algona.....	127. 80	5, 536 30
34	Chicago, Saint Paul and Minneapolis Railroad Company.	Menasha—Ashland.....	251. 02	11, 589 59
35	North Wisconsin Railroad Company.....	Elroy—Saint Paul.....	202. 25	12, 061 57
36	Chicago and Northwestern Railway Company	Hudson—Clayton.....	44. 00	1, 881 00
37	Southern Minnesota Railway Company.....	Winona—Saint Peter—Marshall.	253. 91	11, 018 91
38	Saint Paul and Duluth Railroad Company...	La Crosse—Winnebago City.	170. 49	7, 929 83
39	Saint Paul and Sioux City Railroad Company.	Saint Paul—Duluth.....	155. 73	9, 480 21
40	Saint Paul and Pacific Railroad Company, First Division.	Saint Paul—Saint James....	122. 64	8, 891 89
41	Saint Paul and Pacific Railroad Company, First Division Branch Line.	Saint Paul—Breckenridge..	216. 99	8, 311 58
42	Saint Paul and Pacific Railroad Company, Saint Vincent Extension.	Saint Paul—Sauk Rapids....	76. 30	3, 809 81
43	Missouri Pacific Railway Company.....	East Saint Cloud—Melrose..	35. 06	1, 294 97
46	Stillwater and Saint Paul Railroad Company.	Saint Louis—Atchison.....	329. 75	103, 018 64
		Stillwater—White Bear....	13. 20	660 00

RECAPITULATION.

No. of roads.	Companies designated.	Character of grant or subsidy.	Number of miles.	1878-'79.
				Pay per annum.
5	1 to 5, inclusive	Bonds and lands.....	2, 817. 83	\$660, 779 67
8	6 to 14, inclusive	Lands direct to corporations.....	1, 983. 56	157, 099 29
29	15 to 46, inclusive	Lands to States for corporations.....	6, 456. 91	777, 835 54
42	1 to 46, inclusive		11, 258. 30	1, 595, 714 50

APPENDIX N.

List of acts of Congress relating to railroads.

UNITED STATES STATUTES AT LARGE, VOL. 4.

Date.	Page.	Title of act.
May 9, 1828	268	An act to authorize a railroad within the District of Columbia.
Mar. 2, 1831	476	An act to authorize the extension, construction, and use of a lateral branch of the Baltimore and Ohio Railroad into and within the District of Columbia.
July 14, 1832	604	An act to release from duty iron prepared for, and actually laid on, railways or inclined planes.
Feb. 26, 1834	672	An act further to continue in force "An act to authorize the extension, construction, and use of a lateral branch of the Baltimore and Ohio Railroad into and within the District of Columbia."
June 25, 1834	744	Resolution giving the right of way through the property of the United States at Harper's Ferry to the Winchester and Potomac Railroad Company.
Mar. 3, 1835	757	An act supplementary to an act entitled "An act to authorize the extension, construction, and use of a lateral branch of the Baltimore and Ohio Railroad into and within the District of Columbia," passed December, eighteen hundred and twenty-nine.
Mar. 3, 1835	778	An act to authorize the construction of a railroad upon the public lands from Tallahassee to Saint Mark's, in Florida.
Jan. 27, 1835	792	Resolution authorizing Winchester and Potomac Railroad to complete their road through grounds at Harper's Ferry belonging to the United States.

List of acts of Congress relating to railroads—Continued.

UNITED STATES STATUTES AT LARGE, VOL. 5.

Date.	Page.	Title of act.
Apr. 29, 1836	17	An act to authorize the construction of a railroad through lands of the United States in Springfield, Mass.
July 1, 1836	61	An act explanatory of an act entitled "An act to release from duty iron prepared for, and actually laid on, railways and inclined planes."
July 2, 1836	65	An act to grant to the New Orleans and Nashville Railroad Company the right of way through the public lands of the United States.
Jan. 31, 1837	144	An act to authorize certain railroad companies to construct railroads through the public lands in the Territory of Florida.
Mar. 3, 1837	196	An act to grant the Atchafalaya Railroad and Banking Company the right of way through the public lands of the United States.
Mar. 3, 1837	197	An act to authorize the New Orleans and Carrollton Railroad Company to construct a railroad from Carrollton to the town of Bayou Sara, in the State of Louisiana.
Jan. 25, 1839	314	An act further to regulate the transportation of the mail upon railroads.
Feb. 26, 1845	727	An act to authorize the South Carolina Railroad Company to import certain pipes and machinery free of duty.
Feb. 20, 1845	796	Joint resolution authorizing the Postmaster-General of the United States to contract with railroad companies in certain cases without advertising for proposals therefor.

UNITED STATES STATUTES AT LARGE, VOL. 6.

July 7, 1838	740	An act to remit or refund duties to the Baltimore and Susquehanna Railroad Company upon certain importations of iron made by them for the use of their railroad.
July 7, 1838	740	An act to refund to the New Castle and Frenchtown Turnpike and Railroad Company certain duties paid by them upon iron imported for the construction of their railroad.

UNITED STATES STATUTES AT LARGE, VOL. 9.

Sept. 20, 1850	466	An act granting the right of way and making a grant of land to the States of Illinois, Mississippi, and Alabama, in aid of the construction of a railroad from Chicago to Mobile.
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UNITED STATES STATUTES AT LARGE, VOL. 10.

June 10, 1852	8	An act granting the right of way to the State of Missouri, and a portion of the public lands, to aid in the construction of certain railroads in said State.
Aug. 2, 1852	27	An act to protect actual settlers upon the land on the line of the Central Railroad and branches, by granting pre-emption rights thereto.
Aug. 4, 1852	28	An act to grant the right of way to all rail and plank roads and macadamized turnpikes passing through the public land belonging to the United States.
Aug. 30, 1852	40	An act for the relief of the Wilmington and Manchester Railroad Company.
Feb. 9, 1853	155	An act granting the right of way and making a grant of land to the States of Arkansas and Missouri, to aid in the construction of a railroad from a point on the Mississippi, opposite the mouth of the Ohio River, via Little Rock, to the Texas boundary near Fulton, in Arkansas, with branches to Fort Smith and the Mississippi River.
Mar. 3, 1853	219	An act making appropriation for the survey of a railroad from the Mississippi River to the Pacific Ocean.
Mar. 3, 1853	244	An act to extend pre-emption rights to certain lands along lines of railroads.
Mar. 3, 1853	255	An act to establish certain post-roads, and for other purposes, declaring all railroads post-roads.
Mar. 27, 1854	269	An act for the relief of settlers on lands reserved for railroad purposes.
May 31, 1854	294	An act making appropriation for railroad surveys west of the Mississippi River.
June 29, 1854	302	An act to aid the Territory of Minnesota in the construction of a railroad therein.
Aug. 4, 1854	575	An act to repeal an act entitled "An act to aid the Territory of Minnesota in the construction of a railroad therein," approved the twenty-ninth June, eighteen hundred and fifty-four.
Aug. 5, 1854	579	An act making appropriation for the continuation of a survey of a railroad route to the Pacific.
Mar. 3, 1855	680	An act granting right of way at Pensacola for a railroad.
Mar. 3, 1855	683	An act extending the provisions of act of August fourth, eighteen hundred and fifty-two, entitled "An act to grant the right of way to all rail and plank roads, and macadamized turnpikes, passing through the public lands belonging to the United States," to the public lands in the Territories of the United States.

List of acts of Congress relating to railroads—Continued.

UNITED STATES STATUTES AT LARGE, VOL. 11.

Date.	Page.	Title of act.
May 15, 1856	9	An act making a grant of lands to the State of Iowa, in alternate sections, to aid in the construction of certain railroads in said State.
May 15, 1856	11	An act to provide for the engraving of the maps accompanying the reports of explorations and surveys to determine a Pacific railroad route.
May 17, 1856	15	An act granting public lands, in alternate sections, to the States of Florida and Alabama, to aid in the construction of certain railroads in said States.
June 3, 1856	17	An act granting public lands, in alternate sections, to the State of Alabama, to aid in the construction of certain railroads in said State.
June 3, 1856	18	An act making a grant of lands to the State of Louisiana, to aid in the construction of railroads in said State.
June 3, 1856	20	An act granting public lands to the State of Wisconsin, to aid in the construction of railroads in said State.
June 3, 1856	21	An act making a grant of alternate sections of the public lands to the State of Michigan, to aid in the construction of certain railroads in said State, and for other purposes.
Aug. 11, 1856	30	An act granting public lands, in alternate sections, to the State of Mississippi, to aid in the construction of railroads in said State, and for other purposes.
Mar. 3, 1857	195	An act making a grant of land to the Territory of Minnesota, in alternate sections, to aid in the construction of certain railroads in said Territory, and granting public lands, in alternate sections, to the State of Alabama, to aid in the construction of a certain railroad in said State.
Mar. 3, 1857	200	An act to amend "An act granting public lands, in alternate sections, to the State of Alabama, to aid in the construction of certain railroads in said State."
Feb. 8, 1859	381	An act granting the right of way over, and depot-grounds on, the military reserve at Fort Gratiot, in the State of Michigan, for railroad purposes.
Feb. 18, 1859	384	An act for the relief of the Mobile and Ohio Railroad Company.
Mar. 1, 1859	402	An act to authorize the enrollment, registry, and license of certain steamboats, or vessels, owned by the Buffalo and Lake Huron Railroad Company.

UNITED STATES STATUTES AT LARGE, VOL. 12.

Mar. 2, 1861	197	An act relating to duties on railroad iron.
Jan. 31, 1862	334	An act to authorize the President of the United States, in certain cases, to take possession of railroad and telegraph lines, and for other purposes.
June 5, 1862	422	An act supplemental to "An act granting the right of way to the State of Missouri, and a portion of the public lands, to aid in the construction of certain railroads in said State."
July 1, 1862	468	An act relating to taxes on railroads.
July 1, 1862	469	An act imposing a duty on railroad bonds.
July 1, 1862	489	An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes.
July 11, 1862	536	An act concerning lands heretofore granted to the State of Iowa.
July 12, 1862	538	An act to amend an act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes."
July 14, 1862	569	An act relating to bridge across the Ohio at Steubenville.
July 15, 1862	577	An act to extend the provisions of the act of August four, eighteen hundred and fifty-two, entitled "An act to grant the right of way to all rail and plank roads," &c.
Mar. 6, 1862	614	Joint resolution in relation to certain railroads in the State of Missouri.
Apr. 25, 1862	618	A resolution explanatory of, and in addition to, the act of June third, eighteen hundred and fifty-six, granting public lands to the State of Wisconsin to aid in the construction of railroads in said State.
July 5, 1862	620	Joint resolution relative to a certain grant of land for railroad purposes made to the State of Michigan in eighteen hundred and fifty-six.
July 12, 1862	624	A resolution authorizing the State of Minnesota to change the line of certain branch railroads in said State, and for other purposes.
July 14, 1862	625	Joint resolution to declare the meaning of "An act to authorize the President of the United States, in certain cases, to take possession of railroad and telegraph lines, and for other purposes."
Mar. 3, 1863	743	An act making provision for the payment of railroad engines lost or destroyed in military service.
Mar. 3, 1863	772	An act for a grant of lands to the State of Kansas, in alternate sections, to aid in the construction of certain railroads and telegraphs in said State.
Mar. 3, 1863	807	An act to establish the gauge of the Pacific Railroad and its branches.

UNITED STATES STATUTES AT LARGE, VOL. 13.

May 5, 1864	64	An act making a grant of lands to the State of Minnesota, to aid in the construction of the railroad from Saint Paul to Lake Superior.
May 5, 1864	66	An act granting lands to aid in the construction of certain railroads in the State of Wisconsin.

List of acts of Congress relating to railroads—Continued.

Date.	Page.	Title of act.
May 12, 1864	72	An act for a grant of lands to the State of Iowa, in alternate sections, to aid in the construction of a railroad in said State.
June 2, 1864	95	An act to amend an act entitled "An act making a grant of land to the State of Iowa, in alternate sections, to aid in the construction of certain railroads in said State."
June 7, 1864	119	An act to amend an act entitled "An act making a grant of alternate sections of public lands to the State of Michigan, to aid in the construction of certain railroads in said State, and for other purposes."
June 18, 1864	137	An act extending the time for the completion of the Marquette and Ontonagon Railroad, of the State of Michigan.
July 1, 1864	339	An act making an additional grant of lands to the State of Kansas, to aid in the construction of railroad and telegraph lines.
July 2, 1864	356	An act to amend an act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes."
July 2, 1864	365	An act granting lands to aid in the construction of a railroad and telegraph line from Lake Superior to Puget's Sound, on the Pacific coast, by the northern route.
June 18, 1864	409	A resolution explanatory of an act entitled "An act extending the time for the completion of the Marquette and Ontonagon Railroad of the State of Michigan."
Mar. 3, 1865	504	An act to amend an act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes."
Mar. 3, 1865	520	An act to extend the time for the completion of certain railroads to which land-grants have been made in the States of Michigan and Wisconsin.
Mar. 3, 1865	526	An act extending the time for the completion of certain land-grant railroads in the States of Minnesota and Iowa, and for other purposes.
Mar. 3, 1865	530	An act to amend an act entitled "An act to amend an act entitled 'An act making a grant of alternate sections of public lands to the State of Michigan to aid in the construction of certain railroads in said State.'"
Feb. 17, 1865	569	A resolution to extend the time for the reversion to the United States of the lands granted by Congress to aid in the construction of a railroad from Pere Marquette to Flint, and for the completion of said road.
Mar. 3, 1865	573	A resolution to extend the time for constructing the Burlington and Missouri River Railroad in Iowa, and filing a map of relocation.
Mar. 3, 1865	573	A resolution transferring maps and other documents relating to the surveys of the Pacific Railroad to the Department of the Interior.

UNITED STATES STATUTES AT LARGE, VOL. 14.

Apr. 10, 1866	31	An act to grant the right of way to the Cascade Railroad Company through a military reserve in Washington Territory.
May 21, 1866	51	An act making the railroad bridge at Rouse's Point a post-route.
June 15, 1866	66	An act to facilitate commercial, postal, and military communication among the States, and authorizing railroad companies to form continuous lines.
July 3, 1866	78	An act to extend the time for the reversion to the United States of the lands granted by Congress to aid in the construction of a railroad from Amboy, by Hillsdale and Lansing, to some point on or near Traverse Bay, in the State of Michigan, and for the completion of said road.
July 3, 1866	79	An act to amend an act entitled "An act to amend an act entitled 'An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes.'"
July 4, 1866	83	An act making a grant of lands in alternate sections to aid in the construction and extension of the Iron Mountain Railroad from Pilot Knob, in the State of Missouri, to Helena, in Arkansas.
July 4, 1866	87	An act making an additional grant of lands to the State of Minnesota, in alternate sections, to aid in the construction of railroads in said State.
July 13, 1866	94	An act granting aid in the construction of a railroad and telegraph line from the town of Folsom to the town of Placerville, in the State of California.
July 13, 1866	97	An act relating to lands granted to the State of Minnesota to aid in constructing railroads.
July 23, 1866	210	An act for a grant of lands to the State of Kansas to aid in the construction of the Northern Kansas Railroad and Telegraph.
July 25, 1866	236	An act granting lands to the State of Kansas to aid in the construction of the Kansas and Neosho Valley Railroad and its extension to Red River.
July 25, 1866	239	An act granting lands to aid in the construction of a railroad and telegraph line from the Central Pacific Railroad in California, to Portland, in Oregon.
July 25, 1866	250	An act to authorize the extension, construction, and use by the Baltimore and Ohio Railroad Company of a railroad from between Knoxville and Monocacy Junction into and within the District of Columbia.
July 26, 1866	289	An act granting lands to the State of Kansas to aid in the construction of a southern branch of the Union Pacific Railway and Telegraph from Fort Riley, Kansas, to Fort Smith, Arkansas.
July 27, 1866	292	An act granting lands to aid in the construction of a railroad and telegraph line from the States of Missouri and Arkansas to the Pacific coast.

List of acts of Congress relating to railroads—Continued.

Date.	Page.	Title of act.
July 28, 1866	338	An act to revive and extend the provisions of "An act granting the right of way and making a grant of land to the States of Arkansas and Missouri, to aid in the construction of a railroad from a point upon the Mississippi opposite the mouth of the Ohio River, via Little Rock, to the Texas boundary, near Fulton, in Arkansas, with branches to Fort Smith and the Mississippi River."
Feb. 10, 1866	349	A resolution extending the time for the completion of the Burlington and Missouri River Railroad.
May 7, 1866	355	A resolution extending the time for the completion of the Union Pacific Railway, Eastern Division.
May 21, 1866	356	A resolution to extend the time for the construction of the first section of the Western Pacific Railroad.
June 21, 1866	360	A resolution explanatory of and in addition to the act of May 5, 1864, entitled "An act granting lands to aid in the construction of certain railroads in Wisconsin."
July 3, 1866	362	A resolution for the construction of a railroad bridge across the Cuyahoga River, over and upon the government piers at Cleveland, Ohio.
July 26, 1866	367	A resolution granting the right of way through military reserves to the Union Pacific Railroad Company and its branches.
Feb. 5, 1867	387	An act to authorize the extension, construction, and use of a lateral branch of the Baltimore and Potomac Railroad into and within the District of Columbia.
Mar. 2, 1867	425	An act to amend an act entitled "An act to extend the time for the reversion to the United States of the lands granted by Congress to aid in the construction of a railroad from Amboy, by Hillsdale and Lansing, to some point on or near Traverse Bay, in the State of Michigan, and for the completion of said road."
Mar. 2, 1867	548	An act granting lands to aid in the construction of a railroad from the city of Stockton to the town of Copperopolis in the State of California.

UNITED STATES STATUTES AT LARGE, VOL. 15.

Dec. 14, 1867	* 33	An act granting a certain right of way to the Hudson River West Shore Railroad Company.
Feb. 21, 1868	37	An act to authorize the Southern Minnesota Railroad Company to construct and maintain a bridge across the Mississippi River and establishing a post-route.
Mar. 2, 1868	38	An act to establish and declare the railroad and bridges of the New Orleans, Mobile and Chattanooga Railroad Company, as hereafter constructed, a post-road, and for other purposes.
Mar. 2, 1868	38	An act extending the time for the completion of the Dubuque and Sioux City Railroad.
Mar. 6, 1868	39	An act restoring lands to market along the line of the Pacific railroads and branches.
June 25, 1868	79	An act relative to filing reports of railroad companies.
June 25, 1868	80	An act to amend an act entitled "An act granting lands to aid in the construction of a railroad and telegraph line from the Central Pacific Railroad in California, to Portland, in Oregon."
July 20, 1868	121	An act authorizing the construction of a bridge across the Missouri River, upon the military reservation at Fort Leavenworth, Kansas.
July 20, 1868	123	An act amendatory of an act approved July 26 (5), 1866, entitled "An act to authorize the construction of certain bridges and to establish them as post-roads."
July 25, 1868	187	An act to extend the time for the construction of the Southern Pacific Railroad in the State of California.
July 27, 1868	238	An act amendatory of an act entitled "An act granting public lands to the State of Wisconsin to aid in the construction of railroads in said State."
Dec. 20, 1867	245	Joint resolution changing the time of holding the annual meeting of the stockholders of the Union Pacific Railroad Company.
May 20, 1868	252	Joint resolution concerning certain lands granted to railroad companies in the States of Michigan and Wisconsin.
July 1, 1868	255	Joint resolution extending the time for the completion of the Northern Pacific Railroad.
July 13, 1868	257	Joint resolution to extend the time for the completion of the West Wisconsin Railroad.
Mar. 3, 1869	324	An act to authorize the transfer of lands granted to the Union Pacific Railway Company, Eastern Division, between Denver and the point of its connection with the Union Pacific Railroad to the Denver Pacific Railway and Telegraph Company, and to expedite the completion of railroads to Denver, in the Territory of Colorado.
Mar. 3, 1869	325	An act granting the right of way to the Walla-Walla and Columbia River Railroad Company, and for other purposes.
Mar. 1, 1869	346	Joint resolution granting the consent of Congress provided for in section 10 of the act incorporating the Northern Pacific Railroad Company.
Mar. 3, 1869	348	Joint resolution authorizing the Union Pacific Railway Company, Eastern Division, to change its name to the "Kansas Pacific Railway Company."
Mar. 3, 1869	349	A resolution extending the time for the completion of the first twenty miles of the Cairo and Fulton Railroad.

List of acts of Congress relating to railroads—Continued.

UNITED STATES STATUTES AT LARGE, VOL. 16.

Date.	Page.	Title of act.
Mar. 18, 1869	1	An act supplementary to an act entitled "An act to authorize the extension, construction, and use of a lateral branch of the Baltimore and Potomac Railroad into and within the District of Columbia."
Mar. 29, 1869	3	An act to incorporate the National Junction Railway Company.
Apr. 10, 1869	46	An act to extend the time for the Little Rock and Fort Smith Railroad Company to complete the first section of twenty miles of said road.
Apr. 10, 1869	47	An act to amend an act entitled "An act granting lands to aid in the construction of a railroad and telegraph line from the Central Pacific Railroad, in California, to Portland, in Oregon."
Apr. 7, 1869	53	Joint resolution authorizing the building of a railroad bridge over the Ohio River at Paducah, Ky.
Apr. 10, 1869	54	A resolution in relation to the Burlington and Missouri River Railroad branch of the Union Pacific Railroad.
Apr. 10, 1869	56	Joint resolution for the protection of the interests of the United States in the Union Pacific Railroad Company, the Central Pacific Railroad Company, and for other purposes.
Apr. 10, 1869	57	Joint resolution granting right of way for the construction of a railroad from a point at or near Portland, Oreg., to a point west of the Cascade Mountains, in Washington Territory.
Mar. 8, 1870	76	An act to amend an act entitled "An act to extend the time for the Little Rock and Fort Smith Railroad Company to complete the first section of twenty miles of said road."
Mar. 25, 1870	78	An act to extend the time for the completion of the lateral branch of the Baltimore and Potomac Railroad, authorized by the act approved February 5, 1867, and to change the location in the city of Washington along the bank of the canal.
May 4, 1870	94	An act granting lands to aid in the construction of a railroad and telegraph line from Portland to Astoria and McMinnville, in the State of Oregon.
May 6, 1870	118	An act to authorize the Burlington and Missouri River Railroad Company or its assigns to change the established line of said road in the State of Nebraska.
May 6, 1870	121	An act to fix the point of junction of the Union Pacific Railroad Company and the Central Pacific Railroad Company.
June 21, 1870	161	An act supplementary to an act entitled "An act to authorize the construction, extension, and use of a lateral branch of the Baltimore and Potomac Railroad Company into and within the District of Columbia."
June 28, 1870	167	An act to amend an act incorporating the National Junction Railway Company.
July 14, 1870	275	An act to amend an act entitled "An act authorizing the construction of a bridge across the Missouri River upon the military reservation at Fort Leavenworth, Kans."
May 6, 1870	376	A resolution extending the time for the completion of the first section of twenty miles of the Cairo and Fulton Railroad.
May 31, 1870	378	A resolution authorizing the Northern Pacific Railroad Company to issue its bonds for the construction of its road, and to secure the same by mortgage, and for other purposes.
June 28, 1870	382	Joint resolution concerning the Southern Pacific Railroad of California.
Dec. 15, 1870	395	An act granting to the Utah Central Railroad Company a right of way through the public lands for the construction of a railroad and telegraph.
Feb. 24, 1871	430	An act to authorize the Union Pacific Railroad Company to issue its bonds to construct a bridge across the Missouri River at Omaha.
Mar. 3, 1871	473	An act to provide for the collection of debts due from Southern railroad corporations and for other purposes.
Mar. 3, 1871	573	An act to incorporate the Texas Pacific Railroad Company and to aid in the construction of its road, and for other purposes.
Mar. 3, 1871	582	An act to extend the time for the reversion to the United States of the lands granted by Congress to the State of Michigan, to aid in the construction of a railroad from Pere Marquette to Flint, in said State, and for other purposes.
Mar. 3, 1871	585	An act supplementary to "An act to authorize the extension, construction, and use of a lateral branch of the Baltimore and Potomac Railroad in, to, and within the District of Columbia."
Jan. 30, 1871	593	A resolution granting the right of way to the Pensacola and Barrancas Railroad Company through the naval and military reservations near Pensacola, Fla.
Apr. 10, 1869 (private.)	605	An act legalizing the stamping of certain subscription papers executed and issued to the Iowa Northern Central Railroad Company.

UNITED STATES STATUTES AT LARGE, VOL. 17.

Apr. 19, 1871	5	An act to enable the Leavenworth, Lawrence and Galveston Railroad Company to relocate a portion of its road.
Apr. 20, 1871	19	An act to enable the Atlantic and Pacific Railroad Company to mortgage its road.
Mar. 5, 1872	33	An act to authorize the construction of a bridge across the Missouri River at or near Saint Joseph, Mo.
Apr. 1, 1872	44	An act to authorize the construction of a bridge across the Mississippi River at or near the town of Clinton, in the State of Iowa, and other bridges across said river, and to establish them as post-roads.
Apr. 12, 1872	52	An act granting the right of way through the public lands for the construction of a railroad from Great Salt Lake to Portland, Oregon.

List of acts of Congress relating to railroads—Continued.

Date.	Page.	Title of acts.
May 1, 1872	58	An act to amend an act entitled "An act to authorize the construction of a bridge across the Missouri River at or near Saint Joseph, Mo."
May 2, 1872	59	An act supplementary to an act entitled "An act to incorporate the Texas Pacific Railroad Company, and to aid in the construction of its road, and for other purposes."
May 11, 1872	99	An act to authorize the construction of a bridge across the Missouri River at Boonville, Mo.
May 15, 1872	118	An act to authorize the West Wisconsin Railway Company to keep up and maintain a bridge for railway purposes across Lake Saint Croix at the city of Hudson, in the State of Wisconsin.
May 21, 1872	140	An act to confirm the action of the board of aldermen and common council of the city of Washington designating a depot site for the Baltimore and Potomac Railroad Company, and for other purposes.
May 23, 1872	160	An act to authorize the Chicago and Northwestern Railway Company to change their projected line of railway in the State of Michigan.
May 27, 1872	162	An act in relation to the Dakota Southern Railroad Company.
May 31, 1872	193	An act authorizing the construction of a bridge across the Arkansas River at Little Rock, Ark.
June 1, 1872	202	An act granting the right of way to the Dakota Grand Trunk Railway Company.
June 1, 1872	212	An act granting a right of way to the Utah, Idaho and Montana Railroad Company.
June 4, 1872	215	An act further regulating the construction of bridges across the Mississippi River.
June 4, 1872	220	An act granting to the Davenport and Saint Paul Railroad Company the right of way.
June 4, 1872	222	An act authorizing the construction of a bridge across the Missouri River opposite to or within the corporate limits of Nebraska City, Nebr.
June 4, 1872	223	An act authorizing the construction of a bridge across the Missouri River at Brownville, Nebr.
June 4, 1872	224	An act granting the right of way through the public lands for the construction of a railroad and telegraph line in Florida.
June 8, 1872	339	An act granting the right of way through the public lands to the Denver and Rio Grande Railway Company.
June 8, 1872	340	An act granting the right of way through the public lands to the Pensacola and Louisville Railroad Company of Alabama.
June 8, 1872	343	An act to authorize the building of the New Mexico and Gulf Railway, and for other purposes.
June 8, 1872	345	An act authorizing the Secretary of War to release twenty-five acres of the lands of the United States at Plattsburg, N. Y., to the New York and Canada Railroad Company, and for other purposes.
June 10, 1872	379	An act to authorize the construction of a bridge across the Mississippi River at or near the city of Red Wing, in the State of Minnesota, and to establish it as a post-road.
Jan. 10, 1873	409	An act for the extension of time to the Winona and Saint Peter Railroad Company for the completion of its road.
Jan. 31, 1873	421	An act to quiet the title to certain lands in the State of Iowa.
Feb. 27, 1873	477	An act to authorize the Northern Pacific Railroad Company to construct and maintain a bridge across the Saint Louis River.
Mar. 3, 1873	508	An act directing the Secretary of the Treasury to withhold payments to railroad companies on account of freights or transportation, for interest on bonds not reimbursed, together with 5 per cent. of net earnings.
Mar. 3, 1873	509	An act authorizing the Attorney-General to bring suit against the Union Pacific Railroad Company, and all persons who, &c.
Mar. 3, 1873	598	An act supplemental to an act entitled "An act to incorporate the Texas Pacific Railroad Company and to aid in the construction of its road, and for other purposes."
Mar. 3, 1873	609	An act to amend an act entitled "An act authorizing the Secretary of War to release twenty-five acres of the lands of the United States at Plattsburg, N. Y., to the New York and Canada Railroad Company, and for other purposes."
Mar. 3, 1873	612	An act granting the right of way through the public lands to the Utah Northern Railroad Company.
Mar. 3, 1873	612	An act supplemental to an act entitled "An act granting the right of way through the public lands for the construction of a railroad from Great Salt Lake to Portland, Oregon."
Mar. 3, 1873	613	An act to amend an act entitled "An act granting the right of way to the Walla Walla and Columbia River Railroad Company, and for other purposes."
Mar. 3, 1873	616	An act authorizing the construction of a bridge across the Mississippi River at Saint Louis, in the State of Missouri.
Mar. 3, 1873	627	An act to authorize the construction of a bridge across the Missouri River at or near the city of Lexington, in the State of Missouri, and to establish it as a post-road.
Mar. 3, 1873	631	An act for the extension of time to the Saint Paul and Pacific Railroad Company for the completion of its road.
Mar. 3, 1873	634	An act to quiet the title to the lands of the settlers on lands claimed by the West Wisconsin Railway Company.
Apr. 20, 1871 (private.)	643	An act to enable the Houghton and Ontonagon Railroad Company to make a re-survey of its road.

List of acts of Congress relating to railroads—Continued.

UNITED STATES STATUTES AT LARGE, VOL. 18.

Date.	Page.	Title of act.
Apr. 9, 1874	28	An act to extend the time for completing the Wisconsin Central Railroad in Wisconsin.
Apr. 15, 1874	29	An act to forfeit to the United States certain lands granted to the Placerville and Sacramento Valley Railroad Company to aid in constructing a railroad from the town of Folsom to the town of Placerville in the State of California.
May 27, 1874	48-49	An act to authorize the county commissioners of Thurston County, in Washington Territory, to issue bonds for the purpose of constructing a railroad from Budd's Inlet, Puget Sound, to intersect the Northern Pacific Railroad at or near Tenino.
June 6, 1874	62-63	An act to legalize and establish a pontoon railway bridge across the Mississippi River at Prairie Du Chien, and to authorize the construction of a similar bridge at or near Clinton, Iowa.
June 15, 1874	72	An act to forfeit certain public lands granted to the Stockton and Copperopolis Railroad, in the State of California.
June 16, 1874	74	An act—no money to be paid to railroad companies for transportation of property or troops over roads constructed by aid of grants of public lands, &c.
June 18, 1874	81	An act authorizing the Secretary of War to grant a right of way across a corner of the Fort Gratiot military reservation to the City Railroad Company, Port Huron, Mich.
June 19, 1874	84	An act to authorize the Baltimore and Ohio Railroad Company to construct a branch, and to change the location of its road within the District of Columbia, and for other purposes.
June 20, 1874	111-112	An act making additions to the fifteenth section of the act approved July 2, 1864, entitled "An act to amend an act entitled 'An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes.'"
June 22, 1874	194	An act for the relief of settlers on railroads.
June 22, 1874	197, 198	An act supplementary to the act entitled "An act to incorporate the Texas Pacific Railroad Company, and to aid in the construction of its road, and for other purposes."
June 22, 1874	200	An act providing for the collection of moneys due the United States from the Pacific Railroad Companies.
June 22, 1874	203	An act to extend the act of March 3, 1873, entitled "An act for the extension of time to the Saint Paul and Pacific Railroad Company for the completion of its road."
June 23, 1874	274	An act granting the right of way through the public lands to the Arkansas Valley Railway Company.
June 23, 1874	274, 275	An act supplementary to the act entitled "An act to authorize the Washington City and Point Lookout Railroad Company to extend a railroad into and within the District of Columbia."
June 23, 1874	280	An act extending the right of way heretofore granted to the Allegheny Valley Railroad Company through the arsenal grounds at Pittsburgh, Pa.
Feb. 5, 1875	306	An act granting the right of way and depot grounds to the Oregon Central Pacific Railway Company through the public lands of the United States, from Winnemucca, in the State of Nevada, to the Columbia River, via Portland, in the State of Oregon.
Feb. 27, 1875	335	An act to provide for settlements with certain railway companies.
Mar. 3, 1875	482	An act granting to railroads the right of way through the public lands of the United States.
Mar. 3, 1875	511	An act authorizing the Wisconsin Central Railroad Company to straighten the line of their road.
Mar. 3, 1875	516	An act to correct a clerical error in the act granting the right of way through the public lands to the Denver and Rio Grande Railway Company.
Mar. 3, 1875	519	An act for the relief of settlers on lands within railroad limits.

UNITED STATES STATUTES AT LARGE, VOL. 19.

Apr. 21, 1876	35	An act to confirm pre-emption and homestead entries of public lands within the limits of railroad grants in cases where such entries have been made under the regulations of the Land Department.
May 24, 1876	56	An act to grant the right of way for railroad purposes through the United States arsenal ground near Benicia, Cal.
July 3, 1876	72	An act granting the right of way for a railroad and telegraph line to the Walla-Walla and Columbia River Railroad Company across Fort Walla-Walla military reservation, in Washington Territory.
July 12, 1876	79	An act authorizing the President to appoint a commission of three persons to examine railroad mail service.
July 12, 1876	82	An act making appropriations for the Post-Office Department, section 13, that railroad companies whose railroads were constructed in whole or in part by land-grants made by Congress on the condition that the mails should be transported over their roads at such price as Congress should by law direct, shall receive only 80 per centum of the compensation authorized by this act.
July 24, 1876	101	An act to declare forfeited to the United States certain lands granted to the State of Kansas in aid of the construction of railroads by act of Congress, approved March 3, 1863.

List of acts of Congress relating to railroads—Continued.

Date.	Page.	Title of act.
July 31, 1876	121	An act making appropriations for sundry civil expenses of the government. Proviso: cost of surveying land-grants to be first paid into the Treasury before lands are conveyed to any railroad company.
Aug. 15, 1876	205	An act to authorize the construction of a bridge across the Missouri River at or near Sioux City, Iowa.
May 8, 1876	213	Joint resolution imposing a special tax on dealers on railway trains.
Aug. 15, 1876	217	Joint resolution amending the eighth section of the act making appropriations for the legislative, executive, and judicial expenses of the government for the year ending June 30, 1877, and for other purposes. Survey of Union Pacific and Central Pacific Railways.
Mar. 3, 1877	385	An act making appropriations for the service of the Post-Office Department for the fiscal year ending June 30, 1878, and for other purposes. Six thousand dollars appropriated to continue and complete the service required of the railway commission.
Mar. 3, 1877	404	An act to secure the rights of settlers upon certain railroad lands, and to repeal the first five sections of an act entitled "An act granting lands to the State of Kansas to aid in the construction of the Kansas and Neosho Valley Railroad and its extension to Red River."
Mar. 3, 1877	405	An act to amend an act entitled "An act granting the right of way through the public lands to the Denver and Rio Grande Railway Company."

UNITED STATES STATUTES AT LARGE, VOL. 20.

Mar. 13, 1878	29	An act to authorize the construction of a bridge across the Missouri River at or near Glasgow, Mo.
Apr. 2, 1878	32	An act to authorize the Worthington and Sioux Falls Railroad Company to extend its road into the Territory of Dakota to the village of Sioux Falls.
May 7, 1878	56	An act to alter and amend the act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes," approved July 1, 1862, and also to alter and amend the act of Congress approved July 2, 1864, in amendment of said first-named act.
June 15, 1878	133	An act to restore certain lands in Iowa to settlement under the homestead law, and for other purposes.
June 19, 1878	169	An act to create an Auditor of Railroad Accounts, and for other purposes.
June 20, 1878	241	An act creating the Utah and Northern Railway Company, a corporation, in the Territories of Utah, Idaho, and Montana, and granting the right of way to said company through the public lands.

APPENDIX O.

Statement exhibiting land concessions by acts of Congress to certain corporations for railroad purposes, number of acres certified by years, and total number granted.

	From 1867 to 1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	Total num- ber of acres certified.	Total num- ber of acres granted.
1. Union Pacific Railroad Company.....	544,859.15*	{ 639,024 9,480.52 ..... }	.....	15,395.20	50,733.29	919,771.41	219,373.54	39,371.58	1,842.47	2,430,370.64	12,000,000
2. Central Pacific Railroad Company.....			213,077.59	44,048.42	23,460.27	81,193.11	11,454.07	355,352.05	{ 10,864.62 14,823.18 }	763,753.83	12,100,000
3. Kansas Pacific Railway Company.....			.....	25,999.89	387,001.82	29,887.64	63,665.84	32,284.57	240,857.93	779,697.69	6,000,000
4. Sioux City and Pacific Railroad Company.....			.....	29,744.38	10,452.26	.....	400	161.60	640	41,398.24	600,000
5. Central Branch Union Pacific Railroad Com- pany.....					2,560.03	.....	.....	.....	.....	186,453.28	245,166
6. Denver, Pacific Railway and Telegraph Company.....			183,893.25	.....	.....	49,811.59	.....	.....	.....	49,811.59	1,100,000
7. Texas and Pacific Rail- way Company.....											18,000,000
8. Southern Pacific Rail- road Company.....					5,966.33	394,447.09	285,705.07	22,920.48	230,540.30	939,579.27	9,520,000
9. Northern Pacific Rail- road Company.....				374,885.76	255,832.09	.....	.....	.....	.....	630,717.85	47,000,000
10. Saint Louis and San Francisco Railroad Com- pany†.....		493,178.46	3,171.71	2,792.03	949.13	3,744.06	642.94	.....	.....	504,478.33	42,000,000
11. Burlington and Missou- ri Railroad Company in Nebraska.....			1,420,178.79	950,474.37	.....	3,096.76	340.85	.....	.....	2,374,090.77	2,441,600
12. Oregon and California Railroad Company.....		152,834.67	69,061.63	.....	.....	.....	14,629.67	86,622.71	.....	323,148.68	3,500,000
13. Oregon Central Railroad Company.....											1,200,000
Total number of acres...	544,859.15	1,294,517.65	1,889,382.97	1,443,340.05	736,955.22	1,481,951.66	596,211.98	536,712.99	499,568.50	9,023,500.17	155,166,766

N. B.—This statement does not exclude the number of acres certified, but afterward relinquished, and therefore differs from that of the General Land Office.

* 544,859.15 acres were certified to Union Pacific Railroad Company, and later divided between Nos. 1, 2, and 3.

† Lands granted to Atlantic and Pacific Railroad Company.

Statement exhibiting land concessions by acts of Congress to States for railroad purposes ; number of acres certified by years.

Acres relinquished are indicated by — (.....).

Year.	Illinois.	Mississippi.	Alabama.	Florida.	Louisiana.	Arkansas.	Missouri.
Up to 1863		171, 550	1, 868, 275	1, 759, 160	1, 072, 405. 45		
1864							
1865	2, 595, 053		419, 863. 50				
1866		737, 130. 29		1, 308. 39		1, 465, 297	1, 815, 435
1867			600, 000			327, 870. 10	
1868			—(600, 000)				
1869							(100, 000)
1870							
1871							
1872			308, 193. 87				105, 210. 30
1873						112, 836. 37	3, 130. 97
1874		26, 477. 82				2, 751. 48	
1875						290, 049. 77	
1876			{ 5, 295. 66			69, 264. 56	{ 477. 12
1877			{ 230, 681. 09			100, 424. 90	{
			—(2, 763. 26)			7, 636. 45	3, 751. 63
Relinquished	2, 595, 053	935, 158. 11	3, 432, 309. 12	1, 760, 468. 39	1, 072, 405. 45	2, 376, 130. 63	1, 928, 005. 02
			602, 763. 26				100, 000
	2, 595, 053	935, 158. 11	2, 829, 545. 86	1, 760, 468. 39	1, 072, 405. 45	2, 376, 130. 63	1, 828, 005. 02
Estimated number of acres granted	2, 595, 053	2, 062, 240	3, 579, 120	2, 360, 114	1, 578, 720	4, 878, 149. 14	2, 985, 160. 21

Statement exhibiting land concessions by acts of Congress, &c.—Continued.

Year.	Iowa.	Michigan.	Wisconsin.	Minnesota.	Kansas.	Total certified.
1863	2, 539, 903. 29	2, 082, 494. 23	553, 315. 05	1, 085, 293. 67		11, 132, 396. 69
1864	230, 798. 97	411, 363. 22	630, 559. 14	353, 727. 32		1, 626, 448. 65
1865		175, 469. 59	342, 492. 71	141, 587. 83		3, 674, 466. 63
1866		49, 086. 45	—(146, 821. 55)			4, 068, 257. 13
1867				63, 993. 82		991, 863. 92
1868		—(3, 000)		670, 695. 48		670, 695. 48
1869				194, 985. 52		194, 985. 52
1870	444, 967. 20	2, 083. 02	100, 164. 70	116, 701		663, 915. 92
1871	145, 155. 81	194, 597. 11	163, 263. 69	—(24, 151. 51)		503, 016. 61
1872	149, 417. 92	—(61, 059. 43)		1, 204, 218. 33	152, 834. 67	1, 919, 875. 09
1873	520. 53	—(209, 700. 65)	40	564, 007. 45	523, 696. 54	1, 204, 231. 86
1874	396, 838. 80	164, 286. 61	510, 422. 04	1, 340, 641. 54	2, 845, 551. 85	5, 286, 970. 14
1875	5, 959. 32	405, 119. 22	407, 105. 92	725, 882. 47	269, 631. 55	2, 103, 748. 25
1876	—(58, 432. 60)	{ 2, 848. 51	640	{ 448, 606. 92	{ 162, 977. 92	{ 1, 311, 542. 49
		{ 4, 553. 96	64, 307. 51	{	{ 221, 464. 34	{
1878	{ 73, 494. 75	{ 4, 401. 18	{ 47, 314. 35	{ 39, 161. 35	{ —(328, 828. 44)	{ 198, 070. 39
	{ 11, 646. 76	{ 6, 456. 07			{ 4, 207. 85	
Relinquished	3, 998, 703. 35	3, 502, 759. 17	2, 819, 625. 11	6, 949, 502. 70	4, 180, 364. 72	35, 550, 484. 77
	58, 432. 60	273, 772. 08	146, 821. 55	24, 151. 51	328, 828. 44	1, 534, 769. 44
	3, 940, 270. 75	3, 228, 987. 09	2, 672, 803. 56	6, 925, 351. 19	3, 851, 536. 28	34, 015, 715. 33
Estimated number of acres granted	6, 795, 527. 31	4, 712, 480. 29	4, 808, 436. 07	9, 992, 041. 95	9, 370, 000	55, 717, 041. 97

APPENDIX P.

Government directors of the Union Pacific Railroad Company ; appointed by the President March 29, 1878.

Charles Francis Adams, Jr.	Boston, Mass.
George B. Smyth	Keokuk, Iowa.
Ralph P. Buckland	Fremont, Ohio.
Daniel Chadwick	Lyme, Conn.
Charles C. Housel	Omaha, Nebr

TABLE No. 1.—

	Names of companies.	Incorporated or consoli- dated—	Consolidated with—	Previous name of company.
1 2	Union Pacific R. R. Co. Central Pacific R. R. Co.	July 1, 1862 Aug. 22, 1870	California and Oregon R. R. Co. San Francisco, Oakland and Alameda R. R. Co. San Joaquin Valley R. R. Co.	Central Pacific R. R. Co.
3	Kansas Pacific R. W. Co.	Mar. 3, 1869	.....	Leavenworth, Pawnee and Western R. R. Co. Union Pacific R. W. Co., Eastern Division.
4	Denver Pacific Rail- way and Telegraph Co.	Nov. 19, 1867	.....	.....
5	Central Branch Union Pacific R. R. Co.	Jan. 1, 1867	(On June 9, 1863, the Hannibal and Saint Joseph R. R. Co. assigned all its rights under act of July 1, 1862.)	Atchison and Pike's Peak R. R. Co.
6	Sioux City and Pacific R. R. Co.	Sept. 15, 1868	Northern Nebraska Air-Line R. R. Co.	Sioux City and Pacific R. R. Co.
7	Texas and Pacific R. W. Co.	May 2, 1872	Southern Pacific R. R. Co. (March 21, 1872). Southern Transcontinental R. R. Co. (March 30, 1872). Memphis, El Paso and Pacific R. R. Co.	Texas Pacific R. R. Co.
8	Southern Pacific R. R. Co. of California.	Oct. 12, 1870	San Francisco and San José R. R. Co. Santa Clara and Pajaro Valley R. R. Co. California Southern R. R. Co. Southern Pacific Branch R. R. Co. (Aug. 19, 1873). Los Angeles and San Pedro R. R. Co. (December 18, 1874).	Southern Pacific R. R. Co. of California.
9	Northern Pacific R. R. Co.	July 2, 1864	.....	.....
10	Saint Louis and San Francisco R. W. Co.	Sept. 7, 1876	.....	Atlantic and Pacific R. R. Co.
11	Atlantic and Pacific R. R. Co.	July 27, 1866	Purchased by Saint Louis and San Francisco R. W. Co.	Southwest Branch of Pa- cific R. R. Co. of Missouri.
12	Burlington and Mis- souri River R. R. Co. in Nebraska.	May 12, 1869	.....	.....
13	Oregon and California R. R. Co.	Mar. 17, 1870	.....	Oregon Central R. R. Co. of Salem.
14	Oregon Central R. R. Co.	Nov. 21, 1866	.....	.....
15	New Orleans, Baton Rouge and Vicks- burg R. R. Co.	.....	(No information in regard to this road has been received. Land grant forfeited March 4, 1876.)	.....

Organization.

Date of incorporation.	Road owned.	Road leased.	Leased.	Terms.	Miles operated.
	<i>Miles.</i>	<i>Miles.</i>			
June 28, 1861	1, 038. 60 1, 203. 35	5	From Union Pacific R. R. Co.	999 years. At amount of Union Pacific net earnings per mile.	1, 033. 60
		552. 20	From Southern Pacific R. R. Co.	60 days' notice. At \$6,000 per mile per annum, less \$3,000 per mile per annum for operating expenses.	
		20. 70	From Los Angeles and San Diego R. R. Co.	60 days' notice. Net receipts.	
		5. 64	From Sacramento and Placerville R. R. Co.	At notice. Trackage, \$18,000 per annum.	2, 037. 45
		11. 99	From Stockton and Copperopolis R. R. Co.	30 years. Principal and interest, \$500,000, 5 per cent. 30-year bonds.	
		27. 05	From Amador Branch R. R. Co.	At notice. \$40,500 per annum.	
		3. 15	From Berkeley Branch R. R. Co.	At notice. \$6,000 per annum.	
		43. 79	From Northern R. W. Co....	At notice. \$1,500 per mile per annum.	
		164. 58	From California Pacific R. R. Co.	30 years. \$550,000 per annum and three-fourths net earnings.	
— 1855	672. 34	50	From Junction City and Fort Kearney R. R. Co.	Not given.....	
June 6, 1863	.....	23	From Solomon River R. R. Co.	 do	820. 89
		75. 50	From Arkansas Valley R. R. Co.	 do	
.....	105. 89	27	From Denver and Boulder Valley R. R. Co.	99 years. 45 per cent. of gross earnings.	.....
Feb. 11, 1859	100	20	From Waterville and Washington R. R. Co.	\$20,000 per annum.....	
		41. 60	From Republican Valley R. R. Co.	\$40,000 per annum.....	188. 60
		27	From Atchison, Sal'n Valley and Denver R. R. Co.	Not given.....	
Aug. 1, 1864	106. 82	51. 13	From Fremont, Elk Horn and Missouri Valley R. R. Co.	20 years. 33½ per cent. of gross earnings and taxes.	157. 95
Mar. 3, 1871	443. 86	.....	.....	.....	443. 86
Dec. 2, 1865	711. 95	552. 20	To Central Pacific R. R. Co..	.....	159. 75
.....	586	.....	.....	.....	586
July 27, 1866	292. 50	34	From Atlantic and Pacific R. R. Co.	Maintenance of roadway and track.	
		37	From Missouri Pacific R. R. Co.	Trackage. Nearly \$6,000 per mile per annum.	363. 50
.....	34	.....	To Saint Louis and San Francisco R. R. Co.	.....	.....
.....	190. 14	49. 50	From Omaha and Southwestern R. R. Co.	In perpetuity. 8 per cent. on \$1,034,000; bonds guaranteed.	239. 64
July 25, 1866	200	.....	.....	.....	200
.....	47. 50	.....	.....	.....	47. 50

TABLE No. 1.—*Organ*

	Names of companies.	Incorporated or consoli- dated—	Consolidated with—	Previous name of company.
16	Hannibal and Saint Joseph R. R. Co.	Feb. 16, 1847	Quincy and Palmyra R. R. Co. (March 14, 1867).	.....
17	Saint Louis, Iron Mountain and Southern R. W. Co.	May 6, 1874	Kansas City and Cameron R. R. Co. (February 14, 1870). Arkansas Branch R. R. Co. Cairo and Fulton R. R. Co. Cairo, Arkansas and Texas R. R. Co.	Saint Louis and Iron Mountain R. R. Co.
18	Little Rock and Fort Smith R. W. Co.	Dec. 9, 1874	.....	Little Rock and Fort Smith R. R. Co.
19	Memphis and Little Rock R. R. Co.	Jan. 11, 1853	.....	.....
20	Missouri, Kansas and Texas R. W. Co.	Apr. 7, 1870	.....	Union Pacific R. R. Co., Southern Branch. Tebo and Neosho R. R. Co.. Labette and Sedalia R. R. Co.
21	Atchison, Topeka and Santa Fé R. R. Co.	Mar. 3, 1863	Saint Louis and Santa Fé R. R. Co. (April 29, 1872). Hannibal and Central Missouri R. R. Co. (1874).	Atchison and Topeka R. R. Co.
22	Leavenworth, Lawrence and Galveston R. R. Co.	Feb. 29, 1864	.....	Leavenworth, Lawrence and Fort Gibson R. R. Co.
23	Missouri River, Fort Scott & Gulf R. R. Co.	Oct. 20, 1868	.....	.....
24	Saint Joseph and Western R. R. Co.	Mar. 29, 1877	.....	Marysville, Palmetto and Roseport R. R. Co. Saint Joseph and Denver City R. R. Co. Saint Joseph and Pacific R. R. Co. Kansas and Nebraska R. R. Co.
25	Chicago, Burlington & Quincy R. R. Co.	Jan. 1, 1873	.....	(Burlington and Missouri River R. R. Co.
26	Chicago, Rock Island and Pacific R. R. Co.	Aug. 20, 1866	.....	(Mississippi and Missouri River R. R. Co.
27	Cedar Rapids and Missouri River R. R. Co.	— —, 1855	.....	.....
	Chicago, Iowa and Nebraska R. R. Co.	— —, 1855	.....	.....
28	Dubuque and Sioux City R. R. Co.	Aug. 21, 1860	.....	Dubuque and Pacific R. R. Co.
29	Iowa Falls and Sioux City R. R. Co.	.....	.....	.....
30	Sioux City and Saint Paul R. R. Co.	Jan. 1, 1866	.....	.....
31	Saint Paul and Sioux City R. R. Co.	Mar. 2, 1865	.....	.....
32	Chicago, Milwaukee & Saint Paul R. W. Co.	June —, 1863	McGregor and Missouri River R. R. Co., 1868 (150). Hastings and Dakota R. R. Co. (75). La Crosse and Milwaukee R. R. Co. (62). Minnesota Central R. R. Co. (110).	Milwaukee and Waukesha R. R. Co.
33	Wisconsin Central R. R. Co.	— —, 1853	.....	.....
34	Chicago, Saint Paul & Minneapolis R. R. Co.	Mar. 1, 1878	.....	West Wisconsin R. R. Co...

ization—Continued.

Date of incorporation.	Road owned.	Road leased.	Leased.	Terms.	Miles operated.
	<i>Miles.</i> 292.30	<i>Miles.</i>			292.30
Jan. 12, 1867	684.25				684.25
	168				168
	133				133
Sept. 20, 1865	787.19				787.19
June 18, 1870					
May 7, 1870					
Dec. 1, 1870					
Feb. 13, 1867					
Feb. 11, 1859	471	147	From Pueblo and Arkansas Valley R. R. Co.	Not given.....	786
		27	From Wichita and Southern R. R. Co.	do	
		66	From Kansas City, Topeka and Western R. R. Co.	do	
		45	From Pleasant Hill and De Soto R. R. Co.	do	
		30	From Florence, El Dorado and Walnut Valley R. R. Co.	do	
Feb. 12, 1858	143.32	31.78	From Kansas City and Santa Fé R. R. Co.	Net earnings.....	205.74
		9.64	From Southern Kansas R. R. Co.	do	
		21	From Missouri River, Fort Smith and Gulf R. R. Co.	Not given.....	
	159.92	13.50	From Fort Scott, Southeastern and Memphis R. R. Co.	Traffic arrangement.....	173.42
Feb. 17, 1857	227				227
Apr. 17, 1862					
Nov. —, 1875					
— —, 1856	270.)				1,620.50
— —, 1852	310.50)				1,003
	274.20		To Chicago and Northwestern R. W. Co.	About 33½ per cent. gross earnings.	
	82.40			37½ per cent. gross earnings.	
Nov. 24, 1856	142.89		To Illinois Central R. R. Co.	20 years, with privilege of perpetuity; 36 per cent. gross earnings.	
	183.69		do	35 per cent. gross earnings and 10 per ct. drawback.	
	148.35				148.35
	121.27				121.27
Feb. 11, 1847	320.50				1,412.33
Apr. —, 1863	177.50	23.50	From Saint Paul, Stillwater and Taylor's Falls R. R. Co.	Not given.....	201

TABLE No. 1.—*Organ*

	Names of companies.	Incorporated or consoli- dated—	Consolidated with—	Previous name of company.
35	North Wisconsin R. R. Co.	Oct. 10, 1871	Saint Paul, Stillwater and Tay- lor's Falls R. R. Co., termi- nating 1876.	.....
36	Winona and Saint Pe- ter R. R. Co.	Mar. 10, 1862	.....	Transit R. R. Co.....
37	Southern Minnesota R. W. Co.	Mar. 3, 1877	.....	Root River Valley & South- ern Minnesota R. R. Co.
38	Saint Paul and Duluth R. R. Co.	June 27, 1877	.....	Lake Superior and Missis- sippi R. R. Co.
39	Saint Paul and Pacific R. R. Co., First Div.	May 22, 1857	.....	.....
40	Saint Paul and Pacific R. R. Co., First Div., Branch Line.	.....	.....	.....
41	Saint Paul and Pacific R. R. Co., Saint Vin- cent Extension.	.....	.....	.....
42	Vicksburg, Shreveport and Texas R. R. Co.	Apr. 18, 1853	.....	.....
43	Morgan's Louisiana & Texas R. R. Co.	May 25, 1869	.....	New Orleans, Opelousas and Great Western R. R. Co.
44	Missouri Pacific R. R. Co.	Oct. 26, 1876	.....	Pacific Railroad Company of Missouri.
45	Stillwater and St. Paul R. R. Co.	.....	.....	.....
46	Saint Paul, Stillwater and Taylor's Falls R. R. Co.	.....	.....	.....

ization—Continued.

Date of incorporation.	Road owned.	Road leased.	Leased.	Terms.	Miles operated.
	<i>Miles.</i>	<i>Miles.</i>			
.....	42. 50	.....	.....	.....	42. 50
Mar. 3, 1855	329	.....	Owned and operated by Chicago and Northwestern R. W. Co.	.....	.....
Mar. 2, 1855	167. 50	.....	.....	.....	167. 50
May 23, 1857	156	13	From Stillwater and Saint Paul R. R. Co.	No definite arrangement ..	169
.....	207	.....	}	.....	.....
.....	76	.....		.....	.....
.....	101	.....		.....	384
.....	72	.....		.....	72
.....	97. 25	.....	.....	.....	97. 25
Mar. 12, 1849	294. 50	127	From several companies	Not given	421. 50
.....	13. 00	.....	To Saint Paul and Duluth R. R. Co.	do .....	.....
.....	23. 50	.....	To Chicago, Saint Paul and Minneapolis R. R. Co.	do .....	.....

TABLE No. 2.—

	Names of companies.	Number of stock-holders.	Par value of shares.	Capital stock authorized.
1	Union Pacific Railroad Company	514	\$100 00	\$100,000,000 00
2	Central Pacific Railroad Company	88	100 00	100,000,000 00
3	Kansas Pacific Railway Company	212	100 00	.....
4	Denver Pacific Railway and Telegraph Company	24	100 00	.....
5	Central Branch Union Pacific Railroad Company	60	100 00	.....
6	Sioux City and Pacific Railroad Company	135	100 00	6,000,000 00
7	Texas and Pacific Railway Company	20	100 00	50,000,000 00
8	Southern Pacific Railroad Company	17	100 00	60,000,000 00
9	Northern Pacific Railroad Company	7,850	100 00	100,000,000 00
10	Saint Louis and San Francisco Railway Company	476	100 00	25,000,000 00
11	Atlantic and Pacific Railroad Company	167	100 00	.....
12	Burlington and Missouri River Railroad Company in Nebraska		100 00	8,537,800 00
13	Oregon and California Railroad Company	10	100 00	.....
14	Oregon Central Railroad Company	98	100 00	.....
15	New Orleans, Baton Rouge and Vicksburg Railroad Company .....			.....
16	Hannibal and Saint Joseph Railroad Company		100 00	.....
17	Saint Louis, Iron Mountain and Southern Railway Company		100 00	26,500,000 00
18	Little Rock and Fort Smith Railway Company		100 00	.....
19	Memphis and Little Rock Railroad Company		100 00	.....
20	Missouri, Kansas and Texas Railway Company		100 00	.....
21	Atchison, Topeka and Santa Fé Railroad Company		100 00	.....
22	Leavenworth, Lawrence and Galveston Railroad Company		100 00	.....
23	Missouri River, Fort Scott and Gulf Railroad Company .....			.....
24	Saint Joseph and Western Railroad Company		100 00	10,000,000 00
25	Chicago, Burlington and Quincy Railroad Company		100 00	.....
26	Chicago, Rock Island and Pacific Railroad Company		100 00	25,000,000 00
27	Cedar Rapids and Missouri River Railroad Company		100 00	.....
28	Dubuque and Sioux City Railroad Company		100 00	.....
29	Iowa Falls and Sioux City Railroad Company		100 00	.....
30	Sioux City and Saint Paul Railroad Company		100 00	4,500,000 00
31	Saint Paul and Sioux City Railroad Company		100 00	5,000,000 00
32	Chicago, Milwaukee and Saint Paul Railway Company		100 00	.....
	McGregor and Missouri River Railroad		100 00	.....
	Minnesota Central Railroad		100 00	.....
	Hastings and Dakota Railroad		100 00	.....
	La Crosse and Milwaukee Railroad		100 00	.....
33	Wisconsin Central Railroad Company		100 00	.....
34	Chicago, Saint Paul and Minneapolis Railroad Company		100 00	.....
35	North Wisconsin Railroad Company		100 00	.....
36	Winona and Saint Peter Railroad Company		100 00	5,000,000 00
37	Southern Minnesota Railway Company		100 00	.....
38	Saint Paul and Duluth Railroad Company		100 00	12,000,000 00
39	Saint Paul and Pacific Railroad Company, First Division		100 00	.....
40	Saint Paul and Pacific Railroad Company, First Division, Branch Line		100 00	.....
41	Saint Paul and Pacific Railroad Company, Saint Vincent Ex- tension		100 00	.....
42	Vicksburg, Shreveport and Texas Railroad Company		25 00	4,000,000 00
43	Morgan's Louisiana and Texas Railroad* .....			.....
44	Missouri Pacific Railroad Company		100 00	.....
45	Stillwater and Saint Paul Railroad Company		100 00	.....
46	Saint Paul, Stillwater and Taylor's Falls Railroad Company		100 00	1,000,000 00

* Purchased May 25, 1869, by the late Charles Morgan for—

Ownership.

Capital stock subscribed.	Capital stock issued.		Total.	Owned by company, about—	Remarks.
	Common.	Preferred.			
\$36,783,000 00	\$36,762,300 00		\$36,762,300 00	\$275,100 00	\$2,998,900 held by Kan- sas Pacific.
62,608,800 00	54,275,500 00	.....	54,275,500 00	.....	
9,992,500 00	.....	.....	9,689,950 00	500 00	
4,000,000 00	.....	.....	4,000,000 00	.....	
1,000,000 00	.....	.....	980,600 00	.....	
4,478,500 00	1,899,400 00	\$169,000 00	2,068,400 00	.....	
.....	.....	.....	7,018,500 00	.....	
38,122,000 00	.....	.....	36,763,900 00	.....	
100,000,000 00	20,757,400 00	34,611,820 51	55,369,220 51	.....	
.....	8,299,000 00	13,195,996 00	21,494,996 00	.....	
.....			8,537,800 00		Deferred stock issued in trust.
5,000,000 00	.....	.....	.....	.....	
.....	9,168,700 00	5,083,024 00	14,251,724 00	.....	
.....	.....	.....	21,471,151 00	.....	
.....	1,500,000 00	.....	4,096,000 00	1,500,000 00	
.....	21,405,000 00	124,044 48	21,529,044 48	.....	
.....	8,615,000 00	.....	8,615,000 00	61,000 00	
.....	.....	.....	5,000,000 00	.....	
.....	3,003,000 00	.....	3,003,000 00	.....	
.....	27,644,916 51	.....	27,644,916 51	.....	
.....	20,980,000 00	.....	20,980,000 00	.....	
.....	6,850,400 00	769,600 00	7,620,000 00	.....	
.....	.....	.....	5,000,000 00	.....	
.....	.....	.....	4,625,000 00	.....	
.....	2,400,000 00	2,226,261 00	2,800,000 00	.....	
.....	15,404,261 00	12,279,483 00	4,626,261 00	.....	
.....	.....	.....	27,683,744 00	.....	
.....					
.....	.....	.....	1,900,100 00	.....	
.....	.....	.....	5,000,000 00	.....	
.....	.....	.....	106,500 00	.....	
.....	.....	.....	410,030 00	.....	
.....	.....	.....	None issued.	.....	
.....	3,488,905 96	5,306,851 64	8,795,757 60	.....	
.....	.....	.....	5,000,000 00	.....	
.....	.....	.....	1,468,600 00	.....	
.....	.....	.....	No report.	.....	
.....	.....	.....	No report.	.....	
.....	300,000 00	500,000 00	800,000 00	.....	
.....	400,000 00	.....	400,000 00	.....	
.....	207,000 00	82,900 00	289,900 00	.....	

\$2,050,000, and operated as a private enterprise.

	Names of companies.	President.	Secretary.
1	Union Pacific R. R. Co.....	Sidney Dillon.....	Henry McFarland.....
2	Central Pacific R. R. Co.....	Leland Stanford.....	E. H. Miller, jr.....
3	Kansas Pacific R. W. Co.....	Robert E. Carr.....	D. M. Edgerton.....
4	Denver Pacific R. W. and T. Co.....	D. M. Edgerton.....	R. R. McCormick.....
5	Central Branch Union Pacific R. R. Co.....	R. M. Pomeroy.....	Thomas M. Sother.....
6	Sioux City and Pacific R. R. Co.....	Oliver Ames.....	P. E. Hall, and general manager.
7	Texas and Pacific R. W. Co.....	Thomas A. Scott.....	Charles E. Satterlee.....
8	Southern Pacific R. R. Co.....	Charles Crocker.....	J. L. Wilcutt.....
9	Northern Pacific R. R. Co.....	Charles B. Wright.....	Samuel Wilkeson.....
10	Saint Louis and San Francisco R. W. Co.....	Cornelius J. Bergen, vice-president.	William F. Buckley.....
11	Atlantic and Pacific R. R. Co.....	.....	William F. Buckley.....
12	Burlington and Missouri River R. R. Co. in Nebraska.	George Tyson.....	John N. Denison.....
13	Oregon and California R. R. Co.....	Henry Villard.....	A. G. Cunningham.....
14	Oregon Central R. R. Co.....	J. R. Cornelius.....	A. G. Cunningham.....
15	New Orleans, Baton Rouge and Vicksburg R. R. Co.....	.....	.....
16	Hannibal and Saint Joseph R. R. Co.....	William Dowd.....	John A. Hilton.....
17	Saint Louis, Iron Mountain and Southern R. W. Co.....	Thomas Allen.....	Stephen D. Barlow.....
18	Little Rock and Fort Smith R. W. Co.....	Joseph H. Converse.....	J. W. Gay.....
19	Memphis and Little Rock R. R. Co.....	R. K. Dow.....	John W. Goodwin.....
20	Missouri, Kansas and Texas R. R. Co.....	Wm. Bond, general manager for treasurer.	.....
21	Atchison, Topeka and Santa Fé R. R. Co.....	Thomas Nickerson.....	Edward Wilder.....
22	Leavenworth, Lawrence and Galveston R. R. Co.....	H. H. Hunnewell.....	Charles Merriam.....
23	Missouri River, Fort Scott and Gulf R. R. Co.....	.....	.....
24	Saint Joseph and Western R. R. Co.....	William Bond.....	Alfred Mitchell.....
25	Chicago, Burlington and Quincy R. R. Co.....	John M. Forbes.....	Amos T. Hall.....
26	Chicago, Rock Island and Pacific R. R. Co.....	Hugh Riddle.....	Francis H. Tows.....
27	Cedar Rapids and Missouri River R. R. Co.....	Horace Williams.....	Philo. E. Hall.....
28	Dubuque and Sioux City R. R. Co.....	Morris K. Jesup.....	D. A. McKinlay.....
29	Iowa Falls and Sioux City R. R. Co.....	Horace Williams.....	P. E. Hall.....
30	Sioux City and Saint Paul R. R. Co.....	Elias F. Drake.....	William H. Brown.....
31	Saint Paul and Sioux City R. R. Co.....	Elias F. Drake.....	G. A. Hamilton.....
32	Chicago, Milwaukee and Saint Paul R. W. Co.; McGregor and Missouri River R. R.; Minnesota Central R. R.; Hastings and Dakota R. R.; La Crosse and Milwaukee R. R.	Alexander Mitchell.....	R. D. Jennings.....
33	Wisconsin Central R. R. Co.....	Charles L. Colby.....	Edmund H. Abbott.....
34	Chicago, Saint Paul and Minneapolis R. R. Co.....	W. H. Ferry.....	H. H. Wheatley.....
35	North Wisconsin R. R. Co.....	John A. Humbird.....	Alfred J. Goss.....
36	Winona and Saint Peter R. R. Co.....	Albert Keep.....	S. C. Howe.....
37	Southern Minnesota R. W. Co.....	W. C. Van Horne.....	P. M. Meyers, vice-president and general manager.
38	Saint Paul and Duluth R. R. Co.....	John P. Ilsley.....	E. Q. Sewall.....
39	Saint Paul and Pacific R. R. Co., 1st Div.....	John S. Barnes.....	Samuel S. Breed.....
40	Saint Paul and Pacific R. R. Co., 1st Div., Branch Line.	John S. Barnes.....	Samuel S. Breed.....
41	Saint Paul and Pacific R. R. Co., Saint Vincent Extension.	.....	.....
42	Vicksburg, Shreveport & Texas R. R. Co.....	.....	.....
43	Morgan's Louisiana and Texas R. R.....	Charles A. Whitney & Co., agents.	John B. Richardson.....
44	Missouri Pacific R. R. Co.....	C. K. Garrison.....	C. L. White.....
45	Stillwater and Saint Paul R. R. Co.....	David Bronson.....	H. R. Murdock.....
46	Saint Paul, Stillwater and Taylor's Falls R. R. Co.....	Peter Berkey.....	E. W. Ruff.....

Officers.

Treasurer.	General superintendent.	Receiver.
Henry McFarland.....	S. H. H. Clark.....	S. T. Smith, October, 1878. D. M. Edgerton, G. W. Clayton, April 2, 1878.
E. W. Hopkins.....	A. N. Towne.....	
John L. Woods.....	T. F. Oakes.....	
D. H. Moffat, jr.....	F. F. Griffin.....	
E. H. Nichols.....	Maj. W. F. Downs.....	Union Trust Company, New York, trustees. B. S. Henning. William Bond.
David P. Kimball.....	F. C. Hills.....	
George D. Krumbhaar.....	George Noble.....	
N. T. Smith.....	A. N. Towne.....	
George E. Beebe.....	H. A. Towne.....	
William F. Buckley.....	C. W. Rogers.....	
John N. Denison.....	William Irving.....	
A. G. Cunningham.....	J. Brandt, jr.....	
A. G. Cunningham.....	J. Brandt, jr.....	
Walter J. Hilton.....	John B. Carson.....	
D. W. McWilliams.....	Arthur W. Soper.....	
H. B. Wilbur.....	Theo. Hartman.....	J. P. Farley. J. W. Green.
John W. Goodwin.....	M. B. Pritchard.....	
Edward Wilder.....	A. B. Garner.....	
Charles Merriam.....	C. F. Morse.....	
	B. S. Henning.....	
E. H. Saville.....	L. D. Tuthill.....	
Amos T. Hall.....	C. E. Perkins.....	
Francis H. Tows.....	A. Kimball.....	
John M. Glidden.....	J. T. Lincoln.....	
J. B. Dumont.....	J. T. Lincoln.....	
John M. Glidden.....	S. S. Merrill (general manager).....	J. P. Farley. J. W. Green.
Horace Thompson.....		
Horace Thompson.....		
R. D. Jennings.....		
Edmund H. Abbott.....	Edward Bacon.....	
R. P. Flower.....	E. W. Winter.....	
M. L. Sykes, jr.....	S. Sanborn.....	
Walter Ferguson.....	John M. Egan.....	
E. Q. Sewall.....	George H. Smith.....	
J. Botsford.....	J. P. Farley.....	
J. Botsford.....	J. P. Farley.....	J. P. Farley. J. W. Green.
	W. H. Fisher.....	
Joseph F. McGuire.....	J. W. Green.....	
	George Paudley.....	
George L. Geran.....	A. A. Talmage.....	
E. Q. Sewall.....	George H. Smith.....	
Horace Thompson.....	A. B. Stickney.....	

TABLE No. 4.--

Number.	Names of companies.	Opened for public use.	Length of main track.			Weight of rail per yard.		Length of side track.	Gauge.		Length of tangent lines.
			Steel.	Iron.	Total.	Steel.	Iron.		Feet.	Inches.	
			Miles.	Miles.	Miles.	Lbs.	Lbs.	Miles.			Miles.
1	Union Pacific R. R. Co.	May 10, 1869	192	846.68	1,038.68	56	56	89.50	4 8½		850.12
2	Central Pacific R. R. Co.	May 10, 1869	230.82	972.53	1,203.35	56	56	169.44	4 8½		917.78
3	Kansas Pacific R. W. Co.	Sept. 1, 1870		637.28	637.28		56	63.86	4 8½		522.80
4	Denver Pacific R. W. and Tel- egraph Co.	June 23, 1870		105.89	105.89		56	5.50	4 8½		92.03
5	Central Branch Union Pacific R. R. Co.	Oct. 1, 1868		100	100		50-56	5.65	4 8½		69.95
6	Sioux City and Pacific R. R. Co.	Oct. 1, 1868		101.77	101.77		56	14.96	4 8½		91.25
7	Texas and Pacific R. W. Co.	Aug. 11, 1876		443.86	443.86		56	39.44	4 8½		
8	Southern Pacific R. R. Co.	— —, 1877	338.43	373.52	711.95	50	56	48.18	4 8½		582.59
9	Northern Pacific R. R. Co.	— —, 1877		585.50	585.50		56	20	4 8½		
10	Saint Louis and San Francisco R. W. Co.	Sept. 1, 1871	46.25	246.25	292.50	56	56		4 8½		
11	Atlantic and Pacific R. R. Co.	Sept. 1, 1871		34	34		56		4 8½		
12	Burlington and Missouri River R. R. Co. in Nebraska.	Sept. 2, 1872		190.14	190.14		48-56	20.76	4 8½		
13	Oregon and California R. R. Co.	Dec. 25, 1869		200	200		50-56	8	4 8½		
14	Oregon Central R. R. Co.	Nov. 1, 1871		47.50	47.50		50	1.39	4 8½		
15	New Orleans, Baton Rouge and Vicksburg R. R. Co.										
16	Hannibal and Saint Joseph R. R. Co.	Feb. 22, 1869	74.50	131.91	206.41	52	56-60		4 8½		
17	Saint Louis, Iron Mountain and Southern R. W. Co.		85.46	585.04	680.50	56	56-60		5		
18	Little Rock and Fort Smith R. W. Co.	Jan. —, 1871		168	168		56	4.20	4 8½		
19	Memphis and Little Rock R. R. Co.	— —, 1874		133	133		56-60-72	3	5		
20	Missouri, Kansas and Texas R. W. Co.		130	657.19	787.19	52	56		4 8½		
21	Atchison, Topeka and Santa Fe R. R. Co.	Aug. 1, 1870	22	449	471	56	56	30	4 8½		
22	Leavenworth, Lawrence and Galveston R. R. Co.	— —, 1870		145.96	145.96		57	9.20	4 8½		
23	Missouri River, Fort Scott and Gulf R. R. Co.	May 2, 1870	15.30	144.62	159.92	56	56	24.43	4 8½		
24	Saint Joseph and Western R. R. Co.	— —, 1871		227	227		56	11.35	4 8½		
25	Chicago, Burlington and Quin- cy R. R. Co.	— —, 1860	178.27	103.18	281.45	56	60		4 8½		
26	Chicago, Rock Island and Pa- cific R. R. Co.	June 8, 1869			318.75	56	56-60		4 8½		
27	Cedar Rapids and Missouri River R. R. Co.	— —, 1866			271.60			10	4 8½		
28	Dubuque and Sioux City R. R. Co.	Apr. 1, 1861		142.89	142.89		56	16.08	4 8½		
29	Iowa Falls and Sioux City R. R. Co.	— —, 1870		183.69	183.69		56	6.62	4 8½		
30	Sioux City and Saint Paul R. R. Co.	Sept. 25, 1872		147.50	147.50		50	7.67	4 8½		
31	Saint Paul and Sioux City R. R. Co.	Nov. —, 1870	13.12	108.15	121.27	54	50	11.50	4 8½		
32	Chicago, Milwaukee and Saint Paul R. W. Co.— McGregor and Missouri River R. R. Minnesota Central R. R. Hastings and Dakota R. R. La Crosse and Milwaukee R. R.				210						
			8	140	148		60				
				75	75		50				
				196	196		56-60		4 8½		
33	Wisconsin Central R. R. Co.	— —, 1876		320.50	320.50		54-57	33.25	4 8½		
34	Chicago, Saint Paul and Min- neapolis R. R. Co.	Dec. 1, 1872		177.50	177.50		50-60	8.50	4 8½		
35	North Wisconsin R. R. Co.	Oct. 1, 1875			42.50				4 8½		
36	Winona and Saint Peter R. R. Co.	— —, 1878	.90	326.10	327	60	56	23.78	4 8½		
37	Southern Minnesota R. W. Co.	Dec. 25, 1870	6	161.50	167.50	50.5	52.5	11.50	4 8½		
38	Saint Paul and Duluth R. R. Co.	Aug. 1, 1870		156	156		56	19.50	4 8½		
39	Saint Paul and Pacific R. R. Co., Division	Nov. 20, 1871	1.75	205.25	207	50	50-56	15.20	4 8½		

TABLE No. 4.—Character-

Number.	Names of companies.	Opened for public use.	Length of main track.			Weight of rail per yard.		Length of side track.	Gauge.		Length of tangent lines.
			Steel.	Iron.	Total.	Steel.	Iron.		Feet.	Inches.	
			<i>Miles.</i>	<i>Miles.</i>	<i>Miles.</i>	<i>Lbs.</i>	<i>Lbs.</i>	<i>Miles.</i>			<i>Miles.</i>
40	Saint Paul and Pacific R. R. Co., First Division, Branch Line.	Sept. 30, 1867	10	66	76	56	52	10	4	8½	.....
41	Saint Paul and Pacific R. R. Co., Saint Vincent Extension	— —, 1876	.....	101	101	.....	56	1	4	8½	.....
42	Vicksburg, Shreveport and Texas R. R. Co .....	.....	.....	72	72	.....	56	3	5	6	.....
43	Morgan's Louisiana and Texas R. R .....	.....	.....	.....	80	.....	57	.....	4	8½	.....
44	Missouri Pacific R. R. Co	Oct. 3, 1865	100	183.50	283.50	56	60	.....	4	9	.....
45	Stillwater and Saint Paul R. R. Co	Dec. 28, 1870	.....	.....	13	.....	.....	1.10	4	8½	.....
46	Saint Paul, Stillwater and Tay- lor's Falls R. R. Co .....	.....	16.50	7.25	23.75	50	56	1	4	8½	.....

istics of road—Continued.

[illegible]

TABLE No. 5.—Cost and equipment.*

Number.	Name of companies.	Miles of road.	Cost of construction.	Cost of equipment.	Total cost.	Cost per mile.	Number of loco- tives.	Number of cars.								Total.		
								Passenger.	Sleeping.	Baggage and express.	Postal.	Box freight.	Platform.	Miscellaneous.	Service.		Hand.	
1	Union Pacific R. R. Co.	1,038.68	\$114,627,064.69	\$6,000,000.00	\$120,627,064.69	\$116,100	178	105	23	32	9	1,637	1,000	716	4	.....	.....	3,526
2	Central Pacific R. R. Co.	1,203.35	136,700,235.89	9,073,685.17	145,773,921.06	121,175	227	194	41	27	22	2,543	1,674	81	390	225	.....	5,197
3	Kansas Pacific R. W. Co.	672.34	32,359,540.56	2,000,000.00	34,359,540.56	51,125	89	42	9	17	.....	745	562	.....	16	.....	.....	1,391
4	Denver Pacific R. W. and T. Co.	105.89	6,395,350.00	100,000.00	6,495,350.00	61,280	6	4	.....	4	.....	2	30	.....	.....	.....	40	136
5	Central Branch U. P. R. R. Co.	100	2,419,448.36	129,259.00	2,548,707.36	25,490	6	6	.....	3	.....	41	79	7	.....	.....	.....	235
6	Sioux City and Pacific R. R. Co.	106.82	5,087,627.41	250,000.00	5,337,627.41	49,885	13	9	.....	6	.....	89	45	26	31	27	.....	1,029
7	Texas and Pacific R. W. Co.	443.86	25,340,239.61	1,200,000.00	26,540,239.61	59,775	49	32	.....	11	.....	487	295	204	.....	.....	.....	1,071
8	Southern Pacific R. R. Co.	711.95	64,716,223.04	1,779,614.00	66,495,837.04	90,890	43	69	.....	10	.....	525	287	.....	64	116	.....	1,642
9	Northern Pacific R. R. Co.	586	19,572,707.03	1,054,134.59	20,626,841.62	35,200	48	22	.....	24	.....	.....	.....	1,596	.....	.....	.....	756
10	Saint Louis and San Francisco R. W. Co.	292.50	25,762,238.15	1,000,000.00	26,762,238.15	91,340	28	8	1	4	4	261	10	468	.....	.....	.....	.....
11	Atlantic and Pacific R. R. Co.	34	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Burlington and Missouri River R. R. Co. in Nebraska	190.14	7,500,000.00	500,000.00	8,000,000.00	42,105	16	12	.....	7	.....	155	86	57	3	26	.....	346
13	Oregon and California R. R. Co.	200	4,643,278.65	471,233.77	5,114,512.42	25,575	14	11	.....	3	.....	167	50	10	2	.....	.....	243
14	Oregon Central R. R. Co.	47.50	1,105,305.00	96,622.07	1,201,927.07	45,875	4	2	.....	2	.....	20	20	22	.....	.....	.....	66
15	New Orleans, Baton Rouge and Vicksburg R. R. Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	Hannibal and Saint Joseph R. R. Co.	292.30	12,487,653.89	1610,260.00	13,097,913.89	44,855	72	37	.....	10	5	798	176	449	.....	123	.....	1,598
17	Saint Louis, I. M. and S. R. W. Co.	684.25	41,960,735.04	3,000,000.00	44,960,735.04	67,730	118	46	8	22	.....	607	1,096	933	6	.....	.....	2,718
18	Little Rock and Fort Smith R. W. Co.	168	6,800,000.00	200,000.00	7,000,000.00	41,666	5	6	.....	.....	.....	.....	.....	79	.....	.....	.....	85
19	Memphis and Little Rock R. R. Co.	133	5,700,000.00	300,000.00	6,000,000.00	45,110	14	9	.....	3	.....	.....	.....	127	42	.....	.....	181
20	Missouri, Kansas and Texas R. W. Co.	787.19	39,500,000.00	1,500,000.00	41,000,000.00	52,100	66	35	.....	26	.....	540	179	567	61	.....	.....	1,408
21	Atchison, Topeka and Santa Fe R. R. Co.	471	22,197,810.64	1,250,000.00	23,447,810.64	49,783	61	30	7	10	6	551	96	553	8	114	.....	1,375
22	Leavenworth, Lawrence and Galveston R. R. Co.	143.32	5,632,000.00	350,000.00	5,982,000.00	41,830	18	14	.....	8	.....	163	90	41	1	34	.....	351
23	Missouri River, Fort Scott and Gulf R. R. Co.	.....	.....	.....	.....	.....	23	11	.....	4	2	243	.....	424	1	.....	.....	685
24	Saint Joseph and Western R. R. Co.	227	5,250,000.00	250,000.00	5,500,000.00	24,229	13	4	.....	12	.....	59	95	.....	.....	.....	.....	170
25	Chicago, Burlington and Quincy R. R. Co.	1,547	53,384,339.85	9,446,498.50	62,830,838.35	40,615	336	133	.....	68	.....	5,385	2,315	172	398	421	.....	8,892

TABLE NO. 6.—Liabilities and assets, June 30, 1878.

Number.	Names of companies.	Due to United States for bonds loaned.	Interest due and accrued on United States bonds.	Other bonded debt.	Interest due and accrued.	Pay-rolls and vouchers.	Bills payable.	Accounts payable.	Capital stock.	Total liabilities.	Cost of road and fixtures.	Machinery, locomotives, and cars.	Real estate other than road.	Granted lands unsold (estimated).	Fuel, materials, and supplies.	Cash.	Company's bonds and stocks.	Other bonds and stocks and investments in other companies.	Bills receivable.	Accounts receivable.	Due from United States.	Sinking fund in hands of trustees.	Total assets.	Surplus or deficit.
1	Union Pacific Railroad Company	\$27,236,512 00	\$11,771,728 83	\$51,116,200 00	\$932,476 06	\$449,300 85	\$3,253,653 61	\$1,277,234 72	\$36,762,300 00	\$132,799,406 07	\$114,627,064 69	\$6,000,000 00		\$26,912,367 00	\$912,490 77	\$813,147 62	\$202,199 53	\$4,916,229 77	\$3,633,142 11	\$772,155 16	\$3,064,224 49	\$568,248 99	\$162,421,770 13	\$29,621,864 06
2	Central Pacific Railroad Company	27,855,680 00	15,225,431 38	55,045,000 00	1,167,085 00		4,834,635 11	5,532,485 96	54,275,500 00	163,935,817 45	136,000,000 00	9,500,000 00	\$1,500,000 00	28,250,000 00	2,250,000 00	1,000,000 00				1,277,987 33	3,300,000 00	183,077,987 33	19,142,169 88	
3	Kansas Pacific Railway Company	6,303,000 00	2,930,963 60	22,180,600 00	3,500,000 00	571,376 82	454,863 36	228,770 04	9,689,950 00	45,859,523 82	32,359,540 66	2,000,000 00		14,411,799 00	193,516 26	928,624 38	707,450 00	1,664,409 48	1,020,538 02	1,139,670 70	1,015,606 66	55,441,155 16	9,581,631 34	
4	Denver Pacific Railway and Telegraph Company			2,350,000 00	82,705 00	62,121 17	1,000 00	122,862 17	4,000,000 00	6,618,688 34	6,395,350 00	100,000 00		2,375,000 00	1,372 86	28,520 03		99,487 35	260 85	10,033 13	135,812 90	319,701 60	9,465,538 72	2,846,850 38
5	Sioux City and Pacific Railroad Company	1,628,320 00	936,480 43	1,628,000 00	53,926 75	29,897 14	2,500 00	90,592 34	2,068,400 00	6,438,116 66	5,087,627 41	250,000 00	4,455 63		43,872 76	40,329 72	5,000 00			5,841 63	90,035 73	5,527,162 88	910,953 78	
6	Texas and Pacific Railway Company			18,962,041 45				482,706 92	7,018,500 00	26,761,613 60	25,340,239 61	1,200,000 00	14,000 00		200,000 00	56,011 74	550,000 00					33,360,251 35	6,598,637 75	
7	Southern Pacific Railroad Company (June 30, 1877)	29,520,000 00		29,520,000 00				1,839,644 83	36,763,900 00	68,123,544 83	64,047,964 81	1,904,492 76		6,000,000 00	30,634,667 00	2,412 27	220,000 00	599,024 45					98,335,082 78	30,211,537 95
8	Northern Pacific Railroad Company			5,326,861 96	219,045 00	44,296 21	207,410 98	23,237 28	59,939,321 71	60,214,276 18	19,621,152 06	1,087,181 09	41,895 91	19,578,282 55	81,737 69	92,127 36	4,570,111 20	355,413 42	209,909 79	498,173 87		735,000 00	46,920,770 31	13,293,505 87
9	Saint Louis and San Francisco Railway Company			10,950,000 00	767,998 00	17,943 26		18,665 22	21,494,996 00	27,134,793 47	25,412,238 15	1,000,000 00	350,000 00	7,500,000 00	57,040 47	13,924 43	19,999,300 00	275,643 42	19,273 34	5,459 65	365,358 34	4,473 04	37,891,526 14	6,152,775 18
10	Oregon and California Railroad Company			4,695,000 00	31,500 00	2,567 75	1,012,000 00	2,809 70	4,980,050 00	10,866,705 24	1,106,295 90	487,171 12	298,437 43	3,000,000 00	7,723 75	3,860 21	9,300,462 50	153,020 36		750 00	1,472 24	546 87	13,510,733 54	2,644,028 30
11	Oregon Central Railroad Company			8,700,000 00	152,390 00	340,733 06	146,467 00	52,791 00	14,251,724 00	23,644,105 06	12,487,653 89	610,260 00		666,872 00	85,751 22	183,563 77	1,900 00	1,000 00	2,753,603 53	213,682 21	15,109 35	17,019,395 97	16,624,709 09	
12	Hannibal and Saint Joseph Railroad Company (December 31, 1877)			890,000 00	7,017 20				106,500 00	1,005,717 76	968,254 16	22,158 45		1,760,565 86	2,904 20	3,439 17					540 58		2,777,832 41	1,772,114 65
13	North Wisconsin Railroad Company			3,557,000 00	58,462 68	23,091 33	40,165 20	80,600 02	2,633,860 00	6,393,179 23	5,961,744 15	325,000 00		2,875,000 00	1,273 01	27,773 99		81,637 57	40,915 37	46,879 01	1,841 51	7,112,064 60	3,207,113 41	
14	Winona and Saint Peter Railroad Company							953,428 82	400,000 00	10,128,428 82	9,972,135 15	123,281 74		625,000 00				3,250 00	1,754 76	365,125 34			13,335,542 23	718,885 37
15	Southern Minnesota Railway Company																						11,279,674 69	2,190,943 12
16	Saint Paul and Duluth Railroad Company																							

(Aud. R. R. Acc'ts.)

* Not counting the 18,000,000 acres of lands in California, New Mexico, and Arizona.

† Depreciation of rolling-stock \$2,317,173 18; discount on stocks, bonds, &c., \$4,307,535 91.

26	Chicago, Rock Island and Pacific R. R. Co.	687.25	28,210,120 83	5,500,000 00	33,710,120 83	49,065	230	79	12	26	6	3,197	1,070	86	521	.....	4,997
27	Cedar Rapids and Missouri River R. R. Co.	274.20	.....	.....	11,234,000 00	41,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
28	Dubuque and Sioux City R. R. Co.	142.89	.....	.....	5,882,000 00	41,133	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	I. F. and Sioux City R. R. Co.	183.69	.....	.....	7,577,500 00	41,180	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	Sioux City and Saint Paul R. R. Co.	148.35	5,086,308 92	350,000 00	5,436,308 92	36,730	13	7	.....	3	.....	292	93	.....	18	22	435
31	Saint Paul and Sioux City R. R. Co.	121.27	4,072,462 49	400,000 00	4,472,462 49	36,980	15	6	.....	4	.....	262	63	24	.....	26	385
32	Chicago, Milwaukee and Saint Paul R. W. Co.	1,353.33	51,836,883 00	5,000,000 00	56,836,883 00	42,045	214	101	14	62	..	3,956	847	.....	.....	.....	4,980
	McGregor and Mo. Riv. R. R.																
	Minnesota Central R. R.																
	Hastings and Dakota R. R.																
	LaCrosse and Milwaukee R. R.																
33	Wisconsin Central R. R. Co.	320.50	9,365,531 59	600,000 00	9,965,531 89	31,045	24	17	.....	17	...	286	272	.....	40	.....	632
34	Chicago, Saint Paul and Minneapolis R. R. Co.	177.50	9,790,835 27	350,000 00	10,140,835 27	56,970	18	15	.....	7	...	70	87	.....	.....	33	212
35	North Wisconsin R. R. Co.	42.50	955,702 95	42,258 45	997,961 40	23,210	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	Winona and Saint Peter R. R. Co.	327	9,646,671 37	900,000 00	10,546,671 37	32,255	27	7	.....	62	.....	893	133	2	.....	30	1,127
37	Southern Minnesota R. W. Co.	167.50	5,961,744 15	325,000 00	6,286,744 15	37,533	14	6	.....	3	...	197	83	7	30	58	384
38	Saint Paul and Duluth R. R. Co.	156	4,819,200 00	300,000 00	5,119,200 00	32,815	11	10	.....	4	...	174	139	.....	83	.....	410
39	Saint Paul and Pacific R. R. Co., First Division	207	13,901,500 00	608,370 00	14,509,870 00	70,070	19	13	.....	8	...	185	136	8	44	.....	394
40	Saint Paul and Pacific R. R. Co., First Division, Branch Line	76	5,201,047 50	140,000 00	5,341,047 50	70,276	7	4	.....	6	...	32	20	2	.....	22	86
41	Saint Paul and Pacific R. R. Co., Saint Vincent Extension	101	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
42	North Louisiana and Texas R. Co.	72	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
43	Morgan's Louisiana and Texas R. R.	97.25	1,650,000 00	400,000 00	2,050,000 00	21,135	20	19	.....	9	...	255	108	87	.....	.....	478
44	Missouri Pacific R. R. Co.	294.50	17,500,000 00	2,500,000 00	20,000,000 00	69,795	106	52	.....	30	...	1,409	403	407	8	.....	2,309
45	Stillwater and Saint Paul R. R. Co.	13	356,341 78	20,000 00	376,341 78	28,950	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
46	Saint Paul, Stillwater and Taylor's Falls R. R. Co.	23.50	820,817 74	68,675 18	889,492 92	37,062	2	4	.....	1	.....	10	30	.....	.....	.....	45

* Made up from companies' books, reports, and other sources not verified by this office.

† Including Missouri River Bridge.

‡ As per revised statement of special accountant.

TABLE No. 7.—Statistics of

UNION PACIFIC

Character of bond.	Payable in—	Rate per cent.	Interest payable.	Date of issue.	Term.	Amount issued.	Amount outstanding at last report.
First mortgage.....	Gold	6	Jan. 1 and July 1.	Jan., 1866, to July, 1869.	30 years...	\$27, 237, 000	\$27, 231, 000
Land-grant mortgage (1st mortgage).	Currency	7	Apr. 1 and Oct. 1.	Apr., 1867, to 1869.	20 years...	10, 400, 000	7, 195, 000
Income mortgage (3d mortgage).	Currency.	10	Mar. 1 and Sept. 1.	Sept. —, 1869	2-5 years..	9, 355, 000	1, 000
Omaha bridge mortgage (1st mortgage).	Gold	8	Apr. 1 and Oct. 1.	Apr. 1, 1871	25 years...	2, 500, 000	2, 167, 000
Sinking-fund mortgage (3d mortgage).	Currency.	8	Mar. 1 and Sept. 1.	Mar. 1, 1874	20 years...	14, 470, 000	14, 045, 000
						63, 962, 000	50, 639, 000
U. S. subsidy bonds (2d mortgage).	Currency.	6	Jan. 1 and July 1.	Jan., 1866, to July, 1869.	30 years...	27, 236, 512	27, 236, 000

CENTRAL PACIFIC

Convertible	Gold	7	Jan. & July	Dec. 1, 1862	20 $\frac{1}{2}$ years.	1, 483, 000	1, 483, 000
California State Aid	Gold	7	Jan. & July	July 1, 1864	20 years...	1, 500, 000	1, 500, 000
First mortgage, A. B. C. D.	Gold	6	Jan. & July	July 1, 1865, to July 1, 1866.	30 years...	6, 378, 000	6, 378, 000
First mortgage, E. F. G. H. I.	Gold	6	Jan. & July	Jan. 1, 1867, to Jan. 1, 1868.	30 years...	19, 505, 000	19 505, 000
West. Pacific (old issue).	Gold	6	June & Dec.	Dec. 1, 1865	30 years...	112, 000	112, 000
First mortgage W. P., "A."	Gold	6	Jan. & July	July 1, 1869	30 years...	1, 858, 000	1, 858, 000
First mortgage W. P., "B."	Gold	6	Jan. & July	July 1, 1869	30 years...	765, 000	765, 000
Cal. and Oregon (1st mortgage).	Gold	6	Jan. & July	Jan. 1, 1868	20 years...	6, 000, 000	6, 000, 000
C. P., Cal. and Oreg. Division.	Gold	6	Jan. & July	Jan. 1, 1872	20 years...	2, 000, 000	2, 000, 000
S. F., Oak'd and Alameda.	Gold	8	Jan. & July	July 1, 1870	20 years...	500, 000	500, 000
San Joaquin Valley R. R. (1st mort.)	Gold	6	Apr. & Oct.	Oct. 1, 1870	30 years...	6, 080, 000	6, 080, 000
Land-grant mortgage.	Gold	6	Apr. & Oct.	Oct. 1, 1870	20 years...	9, 840, 000	8, 864, 000
						56, 021, 000	†55, 045, 000
U. S. subsidy bonds, C. P.	Currency.	6	Jan. & July	Jan., 1865, to July, 1869.	30 years...	25, 885, 120	25, 885, 120
U. S. subsidy bonds, W. P.	Currency.	6	Jan. & July	Jan., 1867, to Jan., 1870.	30 years...	1, 970, 560	1, 970, 560
						27, 855, 680	27, 855, 680

* Paid by State of California.

† Against this amount, \$2,967,557.43 accumulated sinking-funds are held by the company, and the

bonded debt June 30, 1878.

RAILROAD COMPANY.

Annual interest payment.	Secured by—	Par value.	Last sale.	Sinking fund established.	Annual requirement for sinking fund.	Price payable for bonds.
\$1,633,860 00	Road and franchises.	\$1,000	\$1,060	July 1, 1878	See sinking-fund act approved May 7, 1878.	Par or lowest terms.
503,650 00	Granted lands....	1,000	1,070	Apr. —, 1867	Proceeds of land-sales.	
.....	Net earnings	1,000	.....	.....	.....	
173,360 00	Bridge	1,000	.....	Apr. —, 1871	\$42,000 in gold	10 per cent. premium.
1,123,600 00	Road, franchises, and lands.	1,000	1,020	Sept. 1, 1875	1 per cent. of outstanding.	Par.
3,434,470 00						
1,634,190 72	United States	1,000	1,210	July 1, 1878	See sinking-fund act approved May 7, 1878.	

RAILROAD COMPANY.

103,810 00	50 miles of road east of Sacramento.	1,000	1,030	In 1863.....	\$35,000
(*)	Road from Sacramento to State line.	1,000	1,080	In 1870.....	\$50,000
382,680 00	Road and franchises between Sacramento and east line of State.	1,000	1,060	In 1870.....	\$50,000
1,170,300 00	Road and franchises east of east line of State.	1,000	1,060	In 1872.....	\$50,000
6,720 00	Road and franchises 100 miles east of San José.	1,000	1,040	.....	\$112,000 first mortgage, series A, retained to redeem.
111,480 00	Road, &c., betw'n Sacramento and San José.	1,000	1,050	In 1876.....	\$25,000
45,900 00	Road, &c., betw'n Sacramento, Oakland, and San José.	1,000	.....	In 1876.....	
360,000 00	Road, &c., from Central Pacific to Oregon State line.	1,000	900	In 1876.....	\$100,000
120,000 00	do.....	1,000	900	In 1876.....	\$100,000
40,000 00	Property, franchises, and income.	1,000	.....	To commence 1880.	\$100,000
364,800 00	Road, &c., betw'n Lathrop and Visalia.	1,000	900	To commence 1880.	\$50,000
531,840 00	Lands granted by United States.	1,000	960	In 1870.....	Proceeds of sales.
3,237,530 00					
1,553,107 20	United States	1,000	1,210	July 1, 1878	See sinking-fund act approved May 7, 1878.
118,233 60	do.....	1,000	1,210	July 1, 1878	do
1,671,340 80					

trustees under the land-grant mortgage hold a balance of cash on hand, amounting to \$1,153,404.06.

TABLE No. 7.—*Statistics of bonded*

KANSAS PACIFIC

Character of bond.	Payable in—	Rate per cent.	Interest payable.	Date of issue.	Term.	Amount issued.	Amount outstanding at last report.
First mortgage, Eastern Division.	Gold	6	Feb. & Aug.	Aug. —, 1865	30 years...	\$2, 240, 000	\$2, 240, 000
First mortgage, Middle Division.	Gold	6	June & Dec.	June —, 1866	30 years...	4, 063, 000	4, 063, 000
First mortgage, Denver Extension.	Gold	7	May and November.	June —, 1869	30 years...	6, 500, 000	*6, 380, 000
Land-grant mortgage (1st mortg).	Currency.	7	March and September.	Mar. 1, 1866	5 & 10 yrs.	500, 000	.....
Land-grant mortgage (1st mortg).	} Gold	7	Jan. and July	July 1, 1870	10 years...	2, 000, 000	†1, 623, 250
Land-grant mortgage (2d mortg).	Gold	7	March and September.	Aug. —, 1871	15 years...	1, 500, 000	1, 055, 000
Leavenworth Branch (1st mort).	Currency.	7	May and November.	Jan. 1, 1866	30 years...	600, 000	600, 000
Income mortgage ..	Currency†	7	Mar. & Sept.	July 1, 1866	50 years...	4, 275, 350	4, 166, 400
Funding mortgage .	Currency.	10	Apr. & Oct.	Oct. 2, 1876	3 years....	1, 500, 000	.....
						23, 178, 350	20, 127, 650
U. S. subsidy bonds.	Currency.	6	Jan. & July	Oct., 1865, to Oct., 1868.	30 years...	6, 303, 000	6, 303, 000

DENVER PACIFIC RAILWAY

First mortgage.....	Gold	7	May & Nov.	Apr. —, 1869	30 years...	2, 500, 000	2, 350, 000
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CENTRAL BRANCH UNION PACIFIC

First mortgage.....	Gold	6	May & Nov.	May —, 1865	30 years...	1, 600, 000	1, 600, 000
U. S. subsidy bonds.	Currency.	6	Jan. & July.	July, 1866, to Jan., 1868.	30 years...	1, 600, 000	1, 600, 000

SIOUX CITY AND PACIFIC

First mortgage.....	Gold	6	Jan. & July.	July 1, 1868	30 years...	1, 628, 000	1, 628, 000
U. S. subsidy bonds.	Currency.	6	Jan. & July.	July, 1868, to July, 1869.	30 years...	1, 628, 320	1, 628, 320

* Against this amount there are \$57,697.84 land-notes in hands of trustees.

† Against this amount there are \$563,526.38 land-notes in hands of trustees.

debt June 30, 1878—Continued.

RAILWAY COMPANY.

Annual interest payment.	Secured by—	Par value.	Last sale.	Sinking fund established.	Annual requirement for sinking fund.	Price payable for bonds.
\$134,400 00	140 miles main line, property, and income.	\$1,000	\$1,020	None		
243,780 00	254 miles main line, property, and income.	1,000	1,020	None		
446,600 00	244 miles of road, property, and income.	1,000	.....	June —, 1869	Proceeds of sale of granted lands, 3,000,000 acres.	With discretion, market value not to exceed 20 per cent. premium.
.....	Granted lands....	1,000	.....			
113,627 50	{ 2,000,000 acres of granted lands.	{ 250 500 1,000 }	.....	July 1, 1870	Proceeds of lands.	{ With discretion, not to exceed 10 pr. ct. above par val.
73,850 00	Land grant, 2,000,000 acres.	1,000	.....	Aug. —, 1871	do	Do.
42,000 00	Branch road and franchises.	1,000	.....			
291,648 00	Net income	{ 100 250 1,000 }	{ 14 35 140 }			
1,345,905 50						
378,180 00	United States	1,000	1,210	None		

AND TELEGRAPH COMPANY.

164,500 00	Granted lands....	1,000		None		
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RAILROAD COMPANY.

96,000 00	100 miles of road, &c.	1,000	500	None		
96,000 00	United States	1,000	1,210	None		

RAILROAD COMPANY.

97,680 00	101.77 miles of road, &c.	1,000	440	None		
97,699 20	United States	1,000	1,210	None		

† After 1871.

TABLE NO

Number.		Yearending—	Earnings.			
			United States.			Commer- cial.
			Passenger.	Mail.	Freight.	Passenger.
1	Union Pacific Railroad Company.....	June 30, 1878	\$293, 449	\$596, 775	\$341, 910	\$2, 965, 774
2	Central Pacific Railroad Company	Dec. 31, 1877	.....	273, 340	.....	5, 483, 704
3	Kansas Pacific Railway Company	June 30, 1878	19, 467	95, 983	31, 636	679, 243
4	Denver Pacific Railway and Telegraph Co	June 30, 1878	2, 208	15, 479	3, 411	66, 872
6	Sioux City and Pacific Railroad Co	June 30, 1878	.....	8, 690	.....	83, 600
7	Texas and Pacific Railway Company....	June 30, 1878	.....	30, 980	.....	594, 031
8	Southern Pacific Railroad Company....	June 30, 1877	.....	13, 176	.....	597, 593
9	Northern Pacific Railroad Company....	June 30, 1878	.....	35, 127	.....	307, 896
10	Saint Louis and San Francisco R. W. Co.	June 30 1878	.....	27, 096	.....	220, 653
13	Oregon and California Railroad Co.....	June 30, 1878	.....	17, 933	.....	227, 524
14	Oregon Central Railroad Company	June 30, 1878	.....	2, 188	.....	25, 337
16	Hannibal and Saint Joseph Railroad Co.	Dec. 31, 1877	.....	61, 700	.....	522, 229
35	North Wisconsin Railroad Company ...	Dec. 31, 1877	.....	3, 401	.....	10, 809
36	Winona and Saint Peter Railroad Co ...	June 30, 1878	.....	12, 349	.....	251, 217
37	Southern Minnesota Railway Company.	June 30, 1878	.....	8, 307	.....	109, 515
38	Saint Paul and Duluth Railroad Co.....	June 30, 1878	.....	10, 639	.....	86, 668

TABLE NO.

Number.		Year ending—	Expenses of trans- portation.	Maintenance of way.	Maintenance of roll- ing stock.	Maintenance of build- ings and machine- ry.	General expenses.	Taxes.
1	Union Pacific R. Co.	1878. June 30	\$2, 083, 290 51	\$1, 792, 516 83	\$904, 965 78	\$67, 782 40	\$294, 592 44	\$294, 003 94
2	Central Pacific R. Co.	1877. Dec. 31	3, 847, 436 77	1, 829, 422 27	1, 204, 158 76	111, 841 63	1, 878, 220 04	356, 940 03
3	Kansas Pacific R. W. Co.	1878. June 30	925, 806 89	726, 781 96	339, 652 89	.....	133, 591 06	101, 009 79
4	Denver Pacific R. W. & Tel. Co.	June 30	.....	.....	.....	.....	.....	.....
6	Sioux City and Pacific R. R. Co.	June 30	147, 748 95	107, 257 39	27, 318 47	6, 457 71	42, 592 20	.....
7	Texas and Pacific R. W. Co.	June 30	696, 539 08	481, 574 92	213, 932 46	15, 000 00	124, 948 76	57, 644 24
8	Southern Pacific R. R. Co.	1877. June 30	321, 901 47	139, 638 09	80, 454 73	8, 897 73	232, 078 35	113, 153 71
9	Northern Pacific R. R. Co.	1878. June 30	250, 153 62	215, 784 78	107, 912 72	.....	66, 333 63	30, 001 43
10	Saint Louis & San Francisco R. R. Co.	June 30	214, 893 95	226, 295 53	102, 800 06	.....	33, 024 96	27, 250 21
16	Hannibal and St. Joseph R. R. Co.	1877. Dec. 31	623, 521 76	162, 675 57	197, 971 95	9, 927 18	141, 789 00	.....
35	North Wisconsin R. R. Co.	Dec. 31	18, 931 79	7, 756 13	883 83	.....	.....	1, 783 70
36	Winona and Saint Peter R. R. Co.	1878. June 30	266, 909 48	241, 357 89	68, 692 73	22, 643 50	1, 462 94	18, 718 13
37	Southern Minnesota R. W. Co.	June 30	.....	.....	.....	.....	.....	.....
38	St. Paul and Duluth R. R. Co.	June 30	160, 796 38	125, 797 98	75, 989 82	13, 779 86	38, 889 37	10, 244 28

8.—Revenue.

Earnings.		Company freight.	Rents.	Miscellaneous.	Total earnings, passenger department.	Total earnings, freight department.	Total earnings.	Income other than earnings.	Total revenue.
Commercial.									
Express.	Freight.								
\$474,707	\$6,386,654	\$819,755	\$58,648	\$819,420	\$4,478,082	\$7,984,417	\$12,784,141	\$113,848	\$12,897,989
226,908	9,738,099	.....	57,945	745,359	6,253,130	9,738,099	16,471,144	760,611	17,231,755
124,147	2,215,408	101,345	26,914	5,895	918,840	2,348,389	3,300,038	49,378	3,349,416
10,728	128,620	.....	1,087	234	95,287	132,031	228,639	16,004	244,643
2,436	197,310	.....	.....	78,719	95,999	268,925	370,665	9,202	379,867
24,371	1,644,753	.....	.....	22,438	649,382	1,644,753	2,316,572	.....	2,316,572
17,769	646,362	.....	2,257,595	20,511	629,474	654,304	3,553,005	.....	3,553,005
10,031	726,102	.....	11,301	23,010	353,054	726,102	1,113,468	.....	1,113,468
25,658	965,224	.....	912	4,564	273,407	965,224	1,244,107	535	1,244,642
7,000	402,285	.....	2,100	11,971	256,009	402,286	686,047	.....	686,047
83	44,532	.....	.....	127	27,607	44,532	72,266	.....	72,266
23,329	1,210,648	.....	107,182	6,279	609,429	1,210,648	1,921,365	.....	1,921,365
282	36,391	.....	.....	178	14,492	36,391	51,061	50,392	101,453
5,540	555,511	.....	.....	6,701	270,553	559,198	831,319	.....	831,319
11,589	704,024	.....	.....	9,713	129,411	704,024	843,148	.....	843,148
6,379	408,057	.....	2,645	435	103,685	408,056	514,823	.....	514,823

9.—Expenditures.

Rentals of leased lines.	Miscellaneous.	Total operating expenses.	Interest paid on bonded debt, premium on gold, &c.	Dividends paid.	Miscellaneous payments.	Total income expenses.	Total expenditures.
.....	*\$366,115 05	\$5,803,266 95	\$5,161,862 88	\$2,204,700	\$79,940 82	\$7,446,503 70	\$13,249,770 65
\$2,583,497 41	.....	11,811,516 91	3,237,530 00	4,342,040	8,131 87	7,587,701 87	19,399,218 78
.....	.....	2,226,842 59	819,470 64	.....	151,967 10	971,437 74	3,198,280 33
.....	.....	141,093 74	111,167 87	.....	34,536 99	145,704 86	286,798 60
7,726 00	.....	339,100 72	98,925 00	11,830	.....	110,755 00	449,855 72
.....	44,331 47	1,633,970 93	627,000 00	.....	.....	627,000 00	2,260,970 93
.....	1,123,905 38	2,020,029 46	1,357,350 00	.....	93,971 48	.....	3,471,350 94
.....	.....	670,186 18	.....	.....	10,172 53	.....	680,358 71
.....	.....	604,264 71	.....	.....	.....	.....	604,264 71
.....	8,067 24	1,143,952 70	660,000 00	.....	.....	660,000 00	1,803,952 70
.....	21 25	29,376 70	6,300 00	.....	.....	6,300 00	35,676 70
.....	.....	619,784 76	591,227 89	.....	.....	591,227 89	1,211,012 65
.....	2,245 24	389,562 56	333,892 51	.....	3,704 14	337,596 65	727,159 21
34,529 51	6,830 96	466,858 16	.....	.....	.....	.....	466,858 16

* Missouri River bridge.

TABLE No. 10.—Comparison of earnings and expenses of thirteen railroads for various periods.

Number.		Year ending—	Miles operated.	Gross earnings.	Gross earnings per mile.	Operating expenses. [†]	Operating expenses per mile.	Net earnings.	Net earnings per mile.	Percentage of operating expenses to gross earnings.	Percentage of net earnings to gross earnings.
1	Union Pacific Railroad Company	Dec. 31, 1877	1,034	\$12,473,204	\$12,063	\$5,273,422	\$5,100	\$7,199,782	\$6,963	42.28	57.72
2	Central Pacific Railroad Company	Dec. 31, 1877	*1,783	16,471,144	9,238	11,811,517	6,625	4,659,627	2,613	71.71	28.29
3	Kansas Pacific Railway Company	Dec. 31, 1877	672	3,284,734	4,888	1,916,957	2,852	1,367,777	2,036	58.32	41.68
4	Denver Pacific Railway and Telegraph Company	Dec. 31, 1877	106	301,846	2,848	147,385	1,390	154,461	1,458	48.83	51.17
6	Sioux City and Pacific Railroad Company	Dec. 31, 1877	107	336,498	3,145	304,993	2,850	31,505	295	90.64	9.36
7	Texas and Pacific Railway Company	May 31, 1878	444	2,331,310	5,251	1,448,439	3,262	882,871	1,989	62.13	37.87
8	Southern Pacific Railroad Company	June 30, 1877	712	3,553,005	4,990	2,020,029	2,837	1,532,976	2,153	56.85	43.15
9	Northern Pacific Railroad Company	Aug. 31, 1877	555	845,740	1,524	495,839	893	349,901	631	58.63	41.37
10	Saint Louis and San Francisco Railway Company	Dec. 31, 1877	363	1,323,944	3,647	584,817	1,611	739,127	2,036	44.17	55.83
13	Oregon and California Railroad Company	Dec. 31, 1877	200	785,374	3,927	382,547	1,913	402,827	2,014	48.71	51.29
14	Oregon Central Railroad Company	Dec. 31, 1877	48	81,861	1,705	82,678	1,722	-817	-17	101.	.....
16	Hannibal and Saint Joseph Railroad Company	Dec. 31, 1877	296	1,921,365	6,491	1,143,953	3,865	777,412	2,626	59.59	40.41
35	North Wisconsin Railroad Company	Dec. 31, 1877	42	51,061	1,216	29,377	700	21,684	516	57.53	42.47

* Average for the year.

† Operating expenses includes all expenditures other than interest on funded debt, new construction and land department expenses.

TABLE No. 11.—Comparison of earnings and expenses of ten railroads for the year ending June 30, 1878.

Number.		Miles operated.	Gross earnings.	Gross earnings per mile.	Operating expenses.	Operating expenses per mile.	Net earnings.	Net earnings per mile.	Percentage of operating expenses to gross earnings.	Percentage of net earnings to gross earnings.
1	Union Pacific Railroad Company	1,034	\$12,784,141	\$12,364	\$5,803,266	\$5,613	\$6,980,875	\$6,751	45.39	54.61
3	Kansas Pacific Railroad Company	672	3,300,038	4,911	2,226,842	3,314	1,073,196	1,597	67.48	32.52
4	Denver Pacific Railway and Telegraph Company	106	228,639	2,157	141,093	1,331	87,546	826	61.71	38.29
6	Sioux City and Pacific Railroad Company	107	370,665	3,464	339,100	3,169	31,565	295	91.56	8.44
7	Texas and Pacific Railway Company	444	2,316,572	5,217	1,633,971	3,680	682,601	1,537	70.53	29.47
9	Northern Pacific Railroad Company	555	1,113,468	2,006	670,186	1,207	443,282	799	60.19	39.81
10	Saint Louis and San Francisco Railway Company	363	1,244,107	3,427	604,265	1,664	639,842	1,763	48.57	51.43
36	Winona and Saint Peter Railroad Company	327	831,319	2,542	619,785	1,895	211,534	647	74.55	25.45
37	Southern Minnesota Railroad Company	167	843,148	5,049	389,563	2,333	453,585	2,716	46.20	53.80
38	Saint Paul and Duluth Railroad Company	169	514,823	3,046	466,858	2,762	47,965	284	90.68	9.32

TABLE No. 12.—Statistics of passenger and freight traffic.

Corporation.	Year ending—	Number of pas- sengers carried.	Number of pas- sengers car- ried one mile.	Number of pas- senger trains run one mile.	Number of tons freight carried.	Number of tons freight carried one mile.	Number of freight and mixed trains run one mile.	Rate per ton per mile, cents.	Rate per passen- ger per mile, cents.
Union Pacific Railroad Company	Dec. 31, 1877	185,691	107,833,371	*2,000,000	716,112	334,644,870	*3,753,729	2.06	3.34
Central Pacific Railroad Company	Dec. 31, 1877	†6,820,556	181,699,312	1,946,190	1,542,572	363,542,310	3,441,614	2.71	3.02
Kansas Pacific Railway Company	Dec. 31, 1877	143,117	18,936,167	498,321	337,520	85,393,211	918,883	2.59	4.91
Denver Pacific Railway and Telegraph Company	Dec. 31, 1877	17,718	1,500,747	77,274	126,078	4,397,073	36,417	3.68	7.11
Sioux City and Pacific Railroad Company	Dec. 31, 1877	62,628	2,536,709	97,064	123,284	7,855,701	124,554	2.62	3.39
Texas and Pacific Railway Company	May 31, 1878	245,112	15,004,800	412,849	388,967	51,022,434	784,906	3.25	3.95
Southern Pacific Railroad Company	June 30, 1877	428,540	.....	301,220	229,492	.....	251,616	.....	.....
Northern Pacific Railroad Company	Aug. 31, 1877	30,538	4,351,622	82,641	.....	.....	174,084	.....	5.21
Saint Louis and San Francisco Railway Company	Dec. 31, 1877	55,736	5,065,313	258,108	254,386	39,824,417	546,816	2.57	4.55
Oregon and California Railroad Company	Dec. 31, 1877	111,940	.....	181,380	88,578	.....	105,340	.....	.....
Oregon Central Railroad Company	Dec. 31, 1877	18,719	.....	30,000	27,692	.....	20,000	.....	.....
Hannibal and Saint Joseph Railroad Company	Dec. 31, 1877	239,547	15,639,718	407,722	497,675	80,764,682	887,426	1.49	3.35
Winona and Saint Peter Railway Company	June 30, 1878	180,172	6,647,898	155,862	330,162	25,683,062	416,373	2.17	3.78
Southern Minnesota Railway Company	June 30, 1878	69,684	2,893,832	95,375	240,736	19,939,577	278,930	3.53	3.78
Saint Paul and Duluth Railroad Company	June 30, 1878	51,967	2,187,701	126,794	244,370	23,482,043	275,051	1.74	3.96

* Estimated.

† Including ferry passengers.

TABLE No. 13.—Operations

Number.	Name of railroad.	Date of land-grant act.	Number of miles covered by grants.	Number of sections per mile granted.	Number of acres patented to June 30, 1878.
1	Union Pacific R. R. Co	July 1, 1862 } July 2, 1864 }	1038 ⁶⁸⁰ / ₁₀₀₀	10 and 20	1, 859, 474. 59
2	Central Pacific R. R. Co	July 1, 1862 } * July 2, 1864 } † July 25, 1866 }	737. 5 123. 16 291	10 and 20 } 10 and 20 } 10 }	1, 117, 037. 17 550, 644. 76
3	Kansas Pacific R. W. Co	July 1, 1862 } July 2, 1864 }	393 ³⁴²⁵ / ₁₀₀₀₀ 244 ⁶⁰⁷⁵ / ₁₀₀₀₀	10 and 20	772, 119. 64
4	Denver Pacific R. W. & T. Co	July 1, 1862 } July 2, 1864 } Mar. 3, 1869 }	106	20	49, 811. 59
5	Central Branch U. P. R. R. Co	July 1, 1862 } † July 2, 1864 }	100	10 and 20	186, 453. 28
6	Sioux City & Pacific R. R. Co	July 1, 1862 } July 2, 1864 }	101. 77	10	41, 318. 23
7	Texas & Pacific R. W. Co	Mar. 3, 1871	870	10 in Cal'a. 20 in Ter's.	None.
8	Southern Pacific R. R. Co	July 27, 1866	942	10 in States. 20 in Ter's.	980, 757. 50
9	Northern Pacific R. R. Co	July 2, 1864	1800	10 in States. 20 in Ter's.	743, 493. 44
10	St. Louis & San Francisco R. W. Co.	June 10, 1852 } July 27, 1866 }	293	6	504, 365. 32
11	Atlantic & Pacific R. R. Co	Mar. 3, 1871 } 33 }	33	10 in States. 20 in Ter's.	None.
12	Burlington & Mo. Riv. R. R. Co. in Nebr	July 2, 1864	190 ¹⁴ / ₁₀₀	20	2, 374, 090. 77
13	Oregon & California R. R. Co	July 25, 1866	200	20	322, 462. 40
14	Oregon Central R. R. Co	May 4, 1870	47. 5	20	None.
15	New Orleans, B. R. & V. R. R. Co	Mar. 3, 1871			None.
16	Hannibal & St. Joseph R. R. Co	June 10, 1852	206. 41	6	603, 506. 34
17	St. Louis, I. M. & S. R. W. Co	{ Feb. 9, 1853 } July 4, 1866 } { July 28, 1866 }	{ 304 } { 210 }	10	1, 383, 614. 66
18	Little Rock & Fort Smith R. W. Co	{ Feb. 9, 1853 } July 28, 1866 }	{ 168 }	6	916, 716. 44
19	Memphis & L. R. R. R. Co	{ Feb. 9, 1853 } July 28, 1866 }	{ 133 }	5 and 15	141, 844. 70
20	Missouri, Kansas & Texas R. W. Co.	{ Mar. 3, 1863 } July 1, 1864 } July 20, 1866 }	{ 577 }	10	658, 068. 13
21	Atchison, Topeka & S. F. R. R. Co	Mar. 3, 1863	471	10	2, 474, 686. 47
22	Leavenworth, Law. & Gal. R. R. Co	Mar. 3, 1863	144. 16	10	256, 281. 66
23	Mo. Riv., Ft. Scott & G. R. R. Co	July 25, 1866	157. 5	10	
24	St. Joseph & Western R. R. Co	July 23, 1866	{ 115 } { 112 }	10	441, 158. 25
25	Chi., Bur. & Quincy R. R. Co	{ May 15, 1856 } June 2, 1864 }	{ 279 }	6	388, 817. 35
26	Chi., Rock Island & Pacific R. R. Co.	{ May 15, 1856 } June 2, 1864 }	{ 309 }	6	643, 307. 17
27	Cedar Rapids & Mo. River R. R. Co.	{ May 15, 1856 } June 2, 1864 }	{ 271. 06 }	6	1, 140, 493. 53
28	Dub. & Sioux City R. R. Co	{ May 15, 1856 } June 2, 1864 }	{ 142. 89 }	6	549, 345. 41
29	I. F. & Sioux City R. R. Co	{ May 15, 1856 } June 2, 1864 }	{ 183. 69 }	6	683, 023. 80
30	Sioux City & St. P. R. R. Co	{ May 12, 1864 }	{ 122. 35 }	6	407, 910. 21
31	St. Paul & S. C. R. R. Co	{ Mar. 3, 1857 } May 12, 1864 }	{ 121. 27 }	6	1, 199, 849. 07
32	Chi., Mil. and St. P. R. W. Co.				
	McG. & Mo. Riv. R. R.	May 12, 1864	150	10	138, 284. 69
	Minn. Cen. R. R.	Mar. 3, 1857	110	6 and 10	179, 736. 01
	Hastings & Dak. R. R.	July 4, 1866	75	10	169, 790. 81
	La Crosse & Mil. R. R.				
33	Wisconsin Central R. R. Co	May 5, 1864	249. 3	10	546, 486. 05
34	Chi., St. P. & Min. R. R. Co	{ June 3, 1856 } May 5, 1864 }	{ 177. 5 }	6 and 10	802, 816. 89
35	North Wisconsin R. R. Co	{ June 3, 1856 } May 5, 1864 }	{ 42. 5 }	6 and 10	843, 497. 58

* Western Pacific.

† Oregon Branch Central Pacific.

of land departments.

Average price in 1877 per acre.	Acres sold.	Land sold during the year.				Acres reclaimed by United States.	Number of acres unsold.
		Ending—	Number of acres sold.	Average price per acre.	Amount.		
\$4 98 {	To Dec. 31, 1877 {	Dec. 31, 1877	69,015.87	\$4 98	\$343,768 02		10,764,947.00
1,318,279.80	1,318,279.80						
7 54 {	To Dec. 31, 1876 {	Dec. 31, 1877	92,647.35	12 99	1,203,870 14	{ Or. Br. 160.00	{ 11,300,000.00
448,502.54	448,502.54						
3 30		Dec. 31, 1877	57,054.29	3 93	224,497 37		4,803,933.00
5 25		Dec. 31, 1877	26,101.56	5 25	136,963 89		950,000.00
From 2 to 6							116,165.00
						320.00	
2 76		Mar. 31, 1878	4,292.53	2 76	11,858 00		18,000,000.00
4 56 {	To June 30, 1877 {	June 30, 1877	90,007.70	4 06	365,810 80		12,061,206.00
192,661.68	192,661.68						
4 50 {	To Aug. 31, 1876 {	Aug. 31, 1878	749,633.00	4 51	3,379,432 32	80.00	
921,902.00	921,902.00						
5 87 {	To Dec. 31, 1877 {	Dec. 31, 1877	38,870.26	5 28	205,291 58		{ 915,654.00
618,482.99	618,482.99						{ Dec. 31, 1877
7 32 {	To Dec. 31, 1873 {					240.00	
527,427.74	527,427.74						
						1,086.28	3,000,000.00
							1,200,000.00
6 13							{ 90,665.00
							{ Jan. 1, 1878
3 83		Dec. 31, 1877	35,295.37	4 43	156,512.75	281.91	
						280.00	
2 23		Dec. 31, 1877	76,694.00	2 23	170,758.65		
5 25 {	Dec. 31, 1877 {						
643,598.57	643,598.57						
3 88 {	Dec. 31, 1876 {						{ 120,391.02
121,958.39	121,958.39						{ Jan. 1, 1877
5 36 {	Dec. 31, 1877 {						
386,287.77	386,287.77						
12 13 {	Dec. 31, 1877 {					815.63	{ 41,230.32
3,565.78	3,565.78						{ Dec. 31, 1877
8 38						360.00	
						1,065.74	
							{ 55,914.45
							{ Dec. 31, 1876
						363.60	
						154.18	
						1,147.49	
						140.00	
						180.00	

Union Pacific Railroad Company.

§ Cairo and Fulton.

|| 1873.

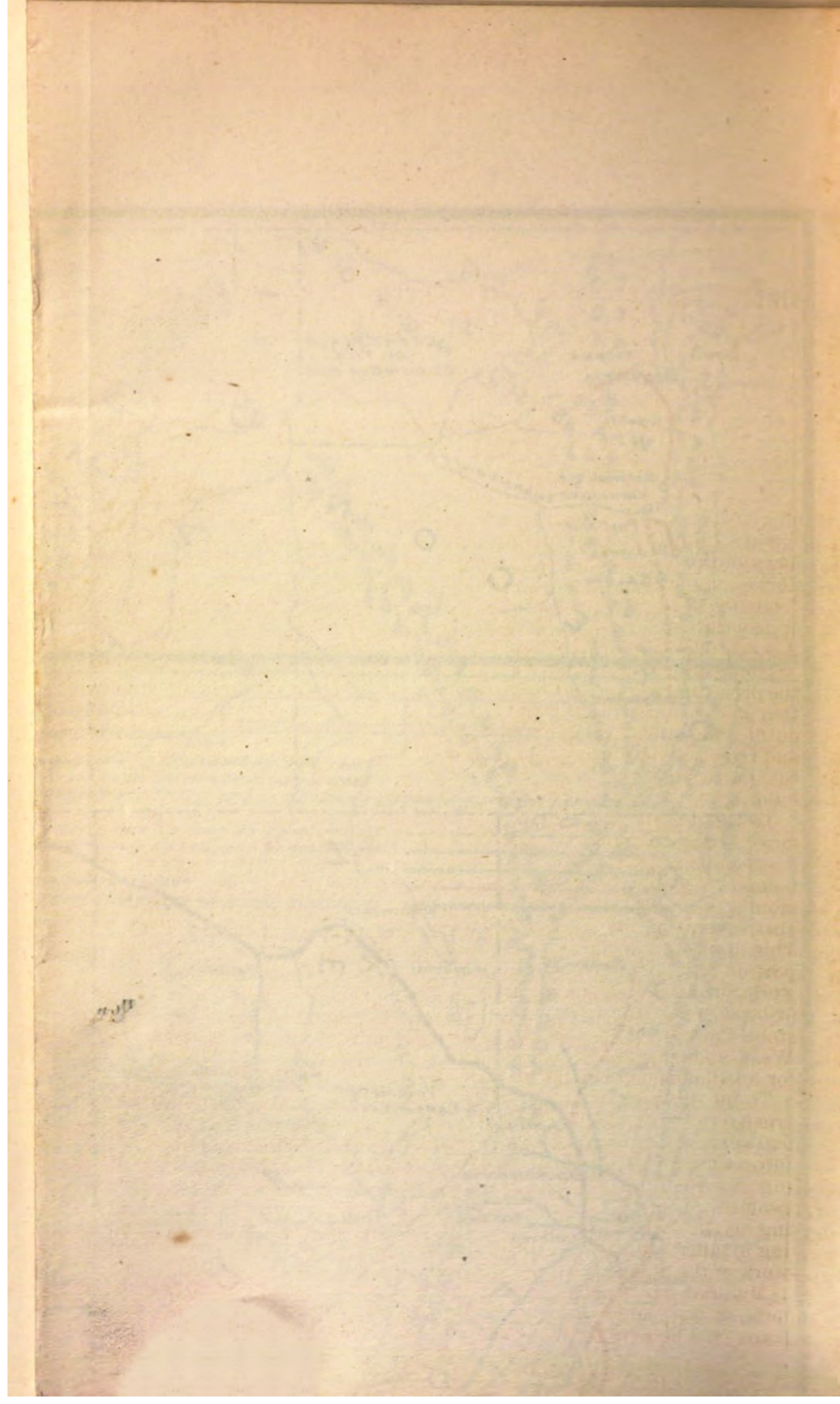
¶ 1876.

TABLE No. 13.—*Operation*

Number.	Name of railroad.	Date of land-grant act.	Number of miles covered by grants.	Number of sections per mile granted.	Number of acres patented to June 30, 1878.
36	Winona & St. Peter R. R. Co.....	Mar. 3, 1865	327	6 and 10	1, 665, 078. 38
37	Southern Minn. R. W. Co.....	July 4, 1866	167. 5	10	285, 403. 84
38	St. Paul & Duluth R. R. Co.....	May 5, 1864 July 13, 1866	156	10	860, 564. 09
39	St. P. & Pac. R. R. Co., I Div.....	Mar. 3, 1857 July 12, 1862	207	10	1, 248, 184. 18
40	St. P. & Pac. R. R. Co., I Div., Br. L.....	Mar. 3, 1865	76	6 and 10	537, 842. 42
41	St. P. & Pac. R. R. Co., St. V. Exten.....	Mar. 3, 1871	104	6 and 10	780, 291. 75
42	Vicksburg, Shreveport & Tex. R. R. Co.....	June 3, 1856	72	.....	353, 211. 70
43	Morgan's Louis. & Tex. R. R.....	June 3, 1856	80	.....	51, 452. 03
44	Missouri Pacific R. R. Co.....	June 10, 1852	37	6	1, 161, 204. 51
45	Stillwater & St. P. R. R. Co.....	Mar. 3, 1857 Mar. 3, 1865	.....	10	.....
46	St. P., Stillwater & T. F. R. R. Co.....	Mar. 3, 1857 Mar. 3, 1865	.....	.....	.....

From the first settlement of the city in 1630 to the present time, the city has grown from a small fishing village to a great metropolis. The early years were marked by hardship and struggle, but the city eventually became a center of commerce and industry. The city's growth was fueled by its strategic location on the coast, which allowed it to become a major port. The city's economy was based on trade, and it became known for its shipbuilding and fishing industries. The city's population grew rapidly, and it became one of the most important cities in the New England region. The city's history is a testament to the resilience and determination of its people, who have overcome many challenges and built a great city.

THE HISTORY OF THE CITY OF BOSTON



PRELIMINARY REPORT

OF THE

FIELD WORK OF THE UNITED STATES GEOLOGICAL AND GEOGRAPHICAL SURVEY OF THE TERRITORIES FOR THE SEASON OF 1878.

By F. V. HAYDEN.

OFFICE GEOLOGICAL AND GEOGRAPHICAL
SURVEY OF THE TERRITORIES,
Washington, D. C., December 1, 1878.

SIR: I have the honor to present for your consideration a brief summary of the field work of the United States Geological and Geographical Survey under my charge, for the season of 1878.

Owing to the length of the session, Congress did not pass the usual appropriation for the work of the survey until July, and consequently the field labor was of comparatively short duration.

The headquarters of the survey was at Cheyenne, Wyo., the same as the preceding season. Four parties were organized, but in such a manner that in case of necessity they could be divided for special duty. All our outfit and animals were transported from Cheyenne to Point of Rocks and Green River Stations, on the Union Pacific Railroad, and from thence the parties pursued their way northward to their respective fields of labor.

To the first division, in charge of A. D. Wilson, was confided the primary triangulation of the entire area to be surveyed. Eight of the most important peaks were employed as stations, with some minor points. Among the more important stations were Wind River, Fremont's, Grand Teton, and Sawtelle's Peaks (near Henry's Lake); also several of the most conspicuous points in the Yellowstone Park. This division was robbed, near Sawtelle's Peak, of all its animals and a portion of its outfit, so that at least half of the most valuable time for work during the season, was lost. Had it not been for this misfortune at least double the work would have been accomplished. The Yellowstone Park at this time forms the most extensive unoccupied area in the West, and, surrounded by great ranges of mountains, becomes a resort for hostile bands of Indians when pursued by the troops.

To the division of the survey in charge of Mr. Henry Gannett was intrusted the work of making a specially-detailed geological and geographical survey of the Yellowstone National Park. The party was divided into two sections for the prosecution of this work; one section, consisting essentially of Mr. Gannett, topographer, and Mr. W. H. Holmes, geologist, made the general survey of the park, while the other, consisting of Dr. A. C. Peale and Mr. J. E. Mushbach, were occupied in making detailed studies and maps of the geyser and hot-spring localities, a work of the greatest interest and value to the scientific world.

Material was secured for a detailed map, on a scale of one mile to an inch, of the Yellowstone Park, an area of 3,500 square miles; and for maps on a large scale of all the principal geyser and hot-spring locali-

ties. In the survey of the park, forty-seven important stations were occupied for secondary triangulation and topography, besides a large number of lesser importance. On all the principal stations, stone monuments were erected for future reference. Several groups of geysers and hot springs, not heretofore known, were discovered.

The area of the Yellowstone Park is, in round numbers, 3,500 square miles. Its surface is in large part level or rolling, with several groups and short ranges of mountains diversifying it. In the eastern part, extending its whole length and forming the water-shed between the Yellowstone and the Bighorn, stand the rugged volcanic peaks of the Yellowstone Range. Nearly all of the park is covered with a dense growth of magnificent pine timber; indeed, west of the one hundredth meridian there is no area so densely timbered with the exception of Washington Territory. The mean elevation of the park above sea-level is between 7,000 and 8,000 feet, which implies too cold a climate to admit of agriculture, except in certain very limited localities. It is safe to say that not more than one per cent. of this area can, by any possibility, be used for agricultural purposes. Except along the northern border, grazing land exists only in small patches of a few acres each. There are not, so far as is known, any mines or mineral deposits within the park.

The only occupied buildings within the park are at the White Mountain Hot Springs, where Mr. J. C. McCartney has made some improvements. A good wagon-road extends from Bozeman, Mont., to this point. From these springs, which form the usual point of departure for excursionists, there are excellent trails to all points of interest within this region; to Amethyst Mountain, Yellowstone Falls and Lake, the Mud Geysers, and other objects of interest on Yellowstone River and the Geyser Basins. It is unnecessary to specify these trails, as they traverse the country in all directions. In his campaign against the Nez Percés, in 1877, General Howard constructed an excellent wagon-road up the Madison to the Lower Geyser Basin, and thence across to the Yellowstone. His road up the Yellowstone is impassable at present for wagons.

Mr. W. H. Holmes acted as geologist to the second division. The first month of the season he was with the fourth division, which proceeded from Point of Rocks Station northward, along the west side of the Wind River Mountains, and up the Snake River Valley to the Yellowstone Park, where he joined the second division. In the mean time he was engaged in making sketches, panoramic views, and geological sections of the intermediate country, all of which will prove of the highest importance in illustrating the geological structure of this most interesting and complicated region.

The latter part of the summer was spent in making detailed geological examinations in the district that includes the National Park. The greater portion of the park was found to be covered with somewhat uniform flows of the ordinary volcanic rocks. Features of more than ordinary geologic interest occur, however, along the northern border of the park district. Here a small belt, not more than 15 by 30 miles in extent, contains a fair epitome of the geology of the Rocky Mountain region. The whole series of formations from the earliest to the most recent are almost typically developed. The only marked irregularity in the succession of geologic events occurred during the great mountain-building period of the Middle Tertiary. After that followed a number of inferior oscillations of the surface, during which an extensive series of recent Tertiary and volcanic rocks were deposited. Connecting this period with the present are the deposits of a number of great lakes, which at the present time

have their chief representative in Yellowstone Lake. Detailed investigations were made at many points of interest, and a fine mineralogical collection was made.

In the mean time Mr. Holmes sketched every square mile of the park, an area of 3,500 square miles. In such minute detail was the work done that the economic resources, as well as all the minor features of the geology, can be laid down on a map on a scale of one mile to an inch with the greatest care and minuteness. The great variety of forms which the mountains in and around the park assume can be presented to the eye by panoramic views with wonderful distinctness.

The third division, under Mr. F. A. Clark, surveyed the Wind River Mountains, a portion of the Wyoming Range, the Gros Ventres Range, with a large area in the Snake River Valley. Mr. Clark made 31 gradient stations and 15 compass stations. The area lies between latitude 43° and 44° and longitude $109^{\circ} 15'$ and 111° . This includes the upper portion of the Wind River Mountains, with portions of the Wyoming Range, the Gros Ventres Range, and portions of the Shoshone Mountains and the Owl Creek Range; also the sources of Green River, Hoback Basin, and upper waters of Wind River. Mr. St. John acted as geologist and Mr. N. W. Perry as mineralogist to this party. Their reports will prove of general interest. Mines of gold, silver, iron, and vast beds of gypsum, as well as many other minerals, were found.

In the prosecution of the field-work of the survey during the past season a photographic division was again put in operation, after an interval of two years, under the leadership of Mr. W. H. Jackson, who has been connected with the survey as its photographer during the past nine years.

Leaving Point of Rocks, on the Union Pacific Railroad, on July 24, the first points of interest were reached on the western flank of the Wind River Mountains. Two side trips, undertaken in connection with Mr. Wilson, in charge of the primary triangulation, were made to the crest of the range, and some grand views of that remarkable region were obtained. From the summit of Frémont's Peak views were made of an immense glacier now occupying its eastern slope. Fine views were also obtained of the great glaciated plateau lying between the plains and the crest of the range.

Proceeding next to the vicinity of the Grand Tétos, lying to the east of the headwaters of the Snake River, several magnificent views of the remarkable range in which they occur were made from the neighborhood of Jackson's Lake.

Reaching Shoshone Lake the 18th of August, the entire month following was devoted exclusively to the careful photography of all the remarkable phenomena connected with the hot springs and geysers of the various basins within the Park. Especial attention was paid to the almost unknown but exceedingly interesting features of the new Shoshone and Red Mountain Basins. The "Fire Hole" and "Mammoth Hot Spring" Basins were again gone over, and the experience derived from the work done here in former years shows its benefits in the remarkably effective views obtained this season. At this latter basin many detailed as well as general views were made with especial reference to the future production of an exact model in plaster of the whole group.

On the homeward route, which was by the way of the Upper Yellowstone, across the headwaters of the Snake to the Wind River and thence via Camp Brown to the railroad, a number of very effective views were made, particularly about the Grand Falls and the cañon of the Yellowstone. At the Yellowstone Lake some very fine views were made, but

that region was left somewhat incomplete in consequence of a prolonged snow-storm.

As the Togwotee Pass some characteristic views were obtained of the remarkable breccia mountains, whose castellated forms adorn that portion of the continental divide, and also some of the curious "bad lands" farther down on Wind River. The season's work closed at Camp Brown, where some excellent portraits and groups were made of the Bannock prisoners in confinement at that post.

A brief summing up of the season's operations of three months, much of which time was characterized by extremely inclement weather, shows an increase to the already very extensive collection of the survey, of 45 negatives 11 by 14 inches in size, and 110 of smaller ones, 5 by 8. The number was purposely kept small that a better quality might prevail in them.

The geologist in charge accompanied the photographic division, and the route pursued gave him an opportunity to secure a very accurate general knowledge of the geological structure of a large area. The Wind River Range proved one of remarkable interest. It has a trend about northwest and southeast, with a length of about 100 miles. On the west side all the sedimentary belts have been swept away, down to the Archæan, older than the Wahsatch, and the latter formation rests on the Archæan rocks all along the base of the range, seldom inclining more than 5° to 10° . On the east side of the range the seams of sedimentary formations usually known to occur in the northwest are exposed from the Potsdam sandstone, which rests upon the Archæan rocks, to the Cretaceous inclusive.

Along the northwestern portion of the range the Wahsatch Group only is seen for some distance, but as we proceed down the Wind River Valley the formations appear one after the other, until at the lower end the entire series is exposed. The Wind River Range may be regarded as originally a vast anticlinal, of which one side has been entirely denuded of the sedimentary, except the Middle Tertiary. On the same side of the range the morainal deposits and glaciated rocks are shown on a scale such as we have not known in any other portion of the West. Three genuine glaciers were discovered on the east base of Wind River and Frémont Peaks, the first known to exist east of the Pacific coast.

The morainal deposits are also found on a grand scale in the Snake River Valley, on the east side of the Teton Range. The numerous lakes have been the beds of glaciers, and the shores of the lakes are walled with morainal ridges. North of the Teton Mountains the prevailing rocks are of modern volcanic origin, and in the Yellowstone Park the hot springs and geysers are the later manifestations of the intense volcanic activity that once existed. All these interesting features were studied with care, and the results will be elaborated for the twelfth annual report of the survey.

It was with great pleasure that the geologist in charge reviewed the ground passed over in 1860, over eighteen years previously. In the years 1859 and 1860 he acted as geologist to the exploring expedition under the command of Col. William F. Reynolds, now of the Engineer Corps, U. S. A. A portion of the geological report made on that expedition will be reprinted in the 11th annual report.* A geological map accompanies this report, which embraces Dakota and Montana, with portions of Idaho, Wyoming, and Colorado.

* Geological Report of the Exploration of the Yellowstone and Missouri Rivers, under the direction of Capt. (now Lieut. Col. and Brevet Brig. Gen.) W. F. Reynolds, Corps of Engineers, 1859-1860. By F. V. Hayden.

The publications of the survey during the past year have been numerous and important. The atlas of Colorado, in twenty sheets, has received the most unqualified praise for its accuracy and beauty, both in this country and in Europe. The following analysis of the atlas was written for the London periodical "Nature," of September 12, by Prof. Archibald Geikie, director of the geological survey of Scotland and professor of geology in the University of Edinburgh, and one of the ablest geologists in Europe :

In the magnificent atlas just issued by the Department of the Interior we have the consummation and crown of all the labors which Dr. Hayden and his staff have carried on so triumphantly for the last five years, and of which they have already given us so much interesting and important information in a series of annual reports. Before examining the work from a scientific point of view, no reader can refrain from expressing his admiration of the style in which the atlas has been produced by the United States Government. As a specimen of cartography, typography, and lithography it is altogether worthy of the highest praise. For beauty and, indeed, sumptuousness of execution, it may be classed with those *livres de luxe* which from time to time have been issued from the National Imprimerie of France.

The atlas consists of two series of maps, the one of a general, the other of a detailed kind. The first series, on the scale of twelve miles to one inch, comprises four sheets, each embracing the whole State of Colorado and part of the neighboring territory. The first of these illustrates the system of triangulation adopted in the survey; the second shows the drainage system of the area; the third, by a simple and clear arrangement of colors, exhibits at a glance the economic features of the whole region—the agricultural land, pasturage, forests and woodlands, sage and bad lands, mineral tracts, and the portions rising above the limit of timber-growth; the fourth contains a condensed and generalized geological map of the same territory. Nothing can surpass the lucidity of expression and artistic finish of these maps.

The second series—twelve in number—is on the scale of four miles to one inch, and consists of six topographical sheets and six identical sheets, colored geologically. The topographical details, though numerous, are so selected as not to neutralize each other or mar the broad, clear picture which the maps were designed to be. By means of contour-lines of 200 feet vertical distance, the surface-configuration of the whole region is depicted as in a model. We can follow the lines of the broad valleys, of the deep, narrow cañons, and of the hundreds of minor tributaries which have scarped out their courses on either side. Here we look down upon a vast table-land, deeply trenched by stream-channels; there upon a succession of bold escarpments or mesas, which bound the table-land and hem in the neighboring valley. Huge mountain-ranges rising out of the plateaus are so vividly drawn that they seem to stand out of the paper; yet no shading is employed. All the effects of inequality are produced by contour lines, so faithfully set down that a single line may be tracked in its sinuous course along the whole of a mountain front until it comes out upon the table-land beyond. When will our map-makers learn to use this, the only true method for expressing the surface of a country? The best of our atlases are disfigured by strips of shading running across the map, like so many caterpillars, to represent mountain ranges. Even our ordnance maps, so admirable in most respects, are sometimes so loaded with shading that a steep hillside, only a few hundred feet high, is made as black as our highest mountains, and the topographical names can hardly be read, even with a magnifying-glass.

But, above all, welcome are these six geological maps. In the previously published maps and charts accompanying the annual reports only small detached areas were represented, and even from the careful descriptions of the various geologists of the staff, it was hardly possible to frame a satisfactory conception of the geology of Colorado as a whole. Ever since the marvels of its deep gorges and vividly painted cliffs were made known, that region has possessed a high interest to the geologist. He has now the means of gratifying his desire for further knowledge. With the help of these maps and the two accompanying sheets of sections, he can realize most satisfactorily every great feature of Colorado geology. The ancient Archæan ridge—the nucleus or backbone of the American Continent—may be traced running north and south nearly along the present hydrographical axis of the country. Flanking that ridge comes a series of Palæozoic deposits, the oldest of which have been identified palæontologically with Silurian formations. Rocks regarded as of Devonian age overlap the Silurian beds, and repose against the ancient crystalline ridge on the southwest side of the San Juan Mountains. They are soon buried under later accumulations, and they seem to be of but local development, since in most places where the rocks are found in juxtaposition, the Silurian are directly succeeded by Carboniferous strata. These last-named rocks cover large tracts of country, running as bands round the Archæan area, and lying in basins across it. Far to the west, where the Grand River has so deeply trenched the Utah plateau, the flat Carboniferous beds appear from under the

brilliant red Triassic strata. The difficulty of drawing any line between Triassic and Jurassic formations in that region is again acknowledged on these maps, the lower red series being doubtfully assigned to the older, and the upper variegated deposits to the latter system.

Cretaceous rocks are abundantly developed, and cover a vast extent of territory. In particular, they spread over the wide plateaux between the San Juan and Gunnison Rivers, and form the platform on which the enormous volcanic outbursts have been piled up from the West Elk Mountains southward into New Mexico. It is more easy to trace on these maps, too, the area respectively occupied by the Laramie, Wasatch, Green River, Bridger, and Uintah formations which represent Post Cretaceous and Tertiary times. Glacier moraines, lake deposits, drifts, sand-dunes, and recent alluvia, all find adequate expression on the maps. Especial care, too, seems to have been bestowed upon the eruptive rocks which form so important and interesting a feature of Colorado geology. The more characteristic varieties are represented by distinct shades of crimson or orange, and they have been mapped in such a way as to convey at a glance, and even without the aid of sections, a tolerable clear notion of the volcanic phenomena of the region. On the one hand we see the great lava-sheets capping the mesas and spreading far over the plateaux; on the other, we notice the great centres of volcanic activity, with their abundant flows, dikes, and breccias.

Two sheets of sections, drawn across all the more interesting and important portions of the geology, complete the vast fund of information given by the maps; while, that nothing may be wanting to enable readers to realize what has been done by the survey, and the conditions under which it has been accomplished, two large sheets of sketches are given, which most vividly represent the forms of the mountains, plateaux, mesas, and river channels as seen from various commanding heights.

Dr. Hayden, with whose personal supervision this great work has been accomplished, has increased tenfold the obligations under which he has laid geologists all over the world for the number and value of his contributions to geology. He now furnishes us with new light whereby to read his former researches and those of his able colleagues. May we venture to hope that he may find leisure to confer yet one further benefit before the progress of his survey plunges him into a new whirl of work? If he could be prevailed upon to sketch out a plan for digesting the materials of his published annual reports, he could doubtless find among his staff some competent writer who, under his guidance, could produce a well-arranged systematic guide-book or text-book to complete the value of the work of his survey. Such a book of reference as would give a reader who has never had access to the annual reports a clear and comprehensive view of Colorado geology would be of great service.

These remarks may be fitly closed with an expression of the warmest admiration of the liberal spirit in which the United States Government has conducted these surveys of the Territories and has published their results. This costly atlas has been distributed gratuitously all over Europe. That this is a wise policy cannot be doubted. Whether actuated or not by a desire to diffuse scientific information, the authorities at Washington do well to make as widely known as possible the geological structure and economic resources of their country. They cast their bread upon the waters and the harvest comes to them in the form of eager, active emigrants from all parts of Europe.

The Bulletin of the Survey has now reached the close of the fourth volume, which contains 37 articles and about 900 octavo pages. The tenth annual report embraces 550 closely printed pages, octavo, with 80 plates, maps, sections, &c. About 50 of the plates illustrate the remarkable cliff-dwellings which were found by the members of the Survey along the cañons of the streams of Southern Colorado and New Mexico. Volume IV, quarto, on the Miocene and Pliocene vertebrates of the West, by E. D. Cope, and Volume XII, by Dr. Joseph Leidy, on the Rhizopods, are far advanced, and will be ready for distribution in the spring. The eleventh annual report is in press; about 300 pages already in type. This volume will be issued early in the spring.

The members of the Survey are now all in the office from their field-work, and busily engaged in elaborating their field-notes. The materials for the twelfth annual are very ample and of great interest.

Very respectfully, your obedient servant,

F. V. HAYDEN,
United States Geologist.

Hon. CARL SCHURZ,
Secretary of the Interior.

APPENDIX.

The following articles on the geology of the Rocky Mountain region were published in the American Journal of Science, New Haven, Conn., several years ago, and are now entirely out of print. Inasmuch as they contain some views that have either been absorbed or overlooked by modern geologists, they are reprinted in this connection. There are some views that, if written at this time, might be restricted or modified, but in the main they are correct. The articles are reprinted without any alteration.

SOME REMARKS IN REGARD TO THE PERIOD OF ELEVATION OF THOSE RANGES OF THE ROCKY MOUNTAINS NEAR THE SOURCES OF THE MISSOURI RIVER AND ITS TRIBUTARIES.

BY DR. F. V. HAYDEN.*

[From the American Journal of Science, vol. xxxiii, May, 1862.]

The object of the present article is to show, as nearly as can be done from known geological data, the period of the elevation of a portion of the Rocky Mountains. My observations have been more especially confined to the ranges from which the Missouri and Yellowstone Rivers, with their numerous tributaries, take their rise, though I feel confident that principles which will apply to mountains occupying so large an area will also be applicable to the whole Rocky Mountain district. It will be impossible, at this time, to mention in detail all the facts in support of my statements, and therefore I shall assume that the reader has examined the previous papers of my associate, Mr. Meek, and myself. During the coming year I hope to prepare a series of articles for this journal which will have a more or less direct bearing on the physical geography of this region and the influences which gave to it its present configuration. Some erroneous statements, growing out of our limited knowledge of the structure of these mountain chains, may be made, but these, when known, will be corrected. Geology is a progressive science, and even our best efforts are but approximations to truth rather than the truth itself.

The evidence seems to me to be clear that the great subterranean forces that elevated the western portion of our continent were called into operation toward the close of the Cretaceous epoch, and that the gradual quiet rising continued, without a general bursting of the earth's crust, until after the accumulation of the Tertiary lignite deposits, or at least the greater part of them; also, that after the fracture of the surface commenced and those great crust movements began to display themselves, the whole country continued rising, or at least, though there may have been periods of subsidence or repose, there was a general upward tendency, which has continued even up to our present period. I hope hereafter to illustrate the correctness of these statements by all the facts that have been obtained in my past explorations as well as by those I may secure in the future.

Let us, in the first place, examine some of the barometrical profiles across the country from the Mississippi River to the Pacific coast, constructed under the direction of the War Department. Previously, however, to this examination we may make the statement that west of longitude 98° the surface of the country may be separated into two divisions, mountain and plain, and that a combination of the two compose the Rocky

* For most important information I would direct attention to second series of this journal, articles xiii, xxxix, vol. iii, 1847, article xxxiv, vol. xii, 1849, and articles xxiv, xxv, vol. xxii, 1856, by Prof. J. D. Dana, in which, it seems to me, will be found the most profound, far-reaching generalizations in regard to the physical geography and geology of the West and other portions of our country which have ever been given to the public. The origin and character of those subterranean forces which have produced such important results in the West are fully discussed in those papers.

Mountain district. After leaving the Mississippi the intervening country westward to the upheaved ridges is an apparently level or undulating plain, with no disturbance of the strata of the underlying formations until we come in close proximity to some of the mountain elevations. Reaching the base of the elevated ridges which form the mountain crests, we at once commence a rugged and abrupt ascent.

If we look at the profile constructed by Governor Stevens, from Saint Paul, Minn., latitude $44^{\circ} 58'$ and longitude $92^{\circ} 58'$, to the Pacific coast, we shall find that the starting point is 828 feet above the ocean-level. Near Fort Union, at the junction of the waters of the Yellowstone and Missouri, 670 miles westward, the height above the ocean-level has increased to 2,010 feet, or 1,182 feet higher than Saint Paul. We thus see that the average ascent of the country between these two points is not quite two feet to the mile. From Fort Union to the valley of Dearborn River, just under the base of the elevated ridges of the principal eastern range, we find the distance to be 448 miles and the height above the ocean 2,081 feet greater than that at Fort Union, or the average rate of ascent increased to nearly five feet per mile. Over this vast extent of country extends an almost limitless prairie, apparently level, with no forests or groves, with no timber except that which skirts the streams. There is in this great distance a gradual increase in the inclination of the strata proportioned to the increase of the ascent, but no marked disturbance of the beds until we arrive in close proximity to the mountain elevations. There are a few local fractures of the earth's crust caused by the elevation of the Bear's Paw, Little Rocky Mountain, &c., around which the sedimentary rocks are more or less disturbed, but all these lesser mountains are more or less remotely connected with the main chain. After passing the highest point of the principal range, along this line, which is near Cadotte's Pass, we commence our descent toward the Pacific very much as we ascended the eastern slope, but over a much more rugged route. We find a continued series of more or less parallel ridges of elevation until we approach the coast for a distance of from 400 to 600 miles. From Fort Walla Walla to the ocean, however, the average descent is a little less than one foot to the mile.

Again, if we examine the profile constructed by Frémont, commencing at the mouth of the Kansas River, we find that the initial point is 690 feet above the ocean. Proceeding westward, the average grade for the first 300 miles is between 4 and 5 feet per mile. Thence to Fort Laramie the ascent, as stated by Frémont, is 8 feet to the mile, and from Fort Laramie to Hot Spring Gate, although still passing over prairie country, the average grade of ascent is given by the same explorer as 45 feet per mile. Over this entire route, however, loaded wagons have been transported with ease. When we reach the foot of the mountains in this direction, the lofty elevated ridges seem to rise abruptly out of the prairie, averaging from 1,000 to 6,000 feet in height above the surrounding country. From thence to the Pacific coast we pass over a continued series of elevations which taken in the aggregate seem to trend nearly northwest and southeast, but which, when examined in detail, often present no definite direction or continuous line of fracture. This mountain region is composed of a series of these ridges forming a belt or zone 400 to 800 miles in width from east to west, interspersed with beautiful valleys through which wind streams of clear water. So numerous are the profiles which have now been made across the continent by different explorers that it is hardly necessary to describe each one, since what we have already said indicates the object in view.

We have said that the western portion of our continent, especially if we look only at the easterly slope, may very properly be divided into mountain and prairie. It is true that in Kansas and Iowa, groves of timber of considerable size are seen, but they form rather the exception than the rule. Along the eastern slope there is a belt of country 300 to 600 miles in width, where, for the most part, the only timber to be seen is a thin fringe bordering the streams. Even in the eastern portion of the main range the timber is not luxuriant, like that so common along the coast of Oregon and California. The pine trees are seldom more than 3 feet in diameter.

Again, we may divide the mountains or elevated ridges which form the different ranges into two kinds, viz, those with long extended lines of fracture, with a granitic nucleus and a comparatively regular outline, and those which appear to be composed of a series of cones or peaks more or less intimately connected, exceedingly irregular in their outline and of eruptive origin. Of the first class, the Black Hills, Bighorn, Laramie, and Wind River Mountains are good examples, while the Wahsatch, Green River, Teton Ranges, and many others west of the dividing crest might be cited as illustrations of the second class. From all the information within our reach we have inferred that after passing the eastern slope the mountain ranges of eruptive origin are far the most numerous. We also know from personal observation that the main range of the Rocky Mountains and the subordinate ridges on either side, near the headwaters of the two principal branches, the Yellowstone and Missouri, are of similar origin and present similar rugged features.

We may now return to the Cretaceous period. In a previous paper in this journal,*

* Vol. xxxi, March, 1861.

we remarked that there were no indications in the geological formations of that portion of the West over which we have traversed of long-continued deep-water deposits until we pass up into the Cretaceous epoch. The lower portion of No. 1, or the Dakota Group, which ushered in the Cretaceous epoch in this portion of the West, is composed of coarse sand, pebbles, &c., with ripple marks, oblique laminae, and with other indications of shallow water and change of currents. The same characters are seen throughout the formation wherever it is exhibited. We also know from the numerous impressions of leaves, and some beds of impure lignite, that dry land could not have been far distant. But as we pass up through Nos. 2, 3, and 4, whatever changes of land may have occurred in the mean time, we think there were periods at least when the sea was of considerable depth and suffered a quiet deposition to go on. We infer this from the fine and homogeneous character of the sediments. Throughout No. 4 we have a fine plastic clay which continues up into No. 5, when a gradual change takes place from the introduction of yellowish ferruginous matter, and a slow increase of sandy sediments. Toward the middle of No. 5 the sand begins to predominate until the upper part becomes a coarse ferruginous sandstone, with all the indications of shallow-water deposits. We know, also, from fragments of wood and impressions of leaves which have been found quite widely distributed in the upper part of No. 5, that dry land could not have been far away. We also infer from the character of the molluscan remains that the great Cretaceous sea which had so long spread its vast waters over this region was becoming shallow, and that a new epoch was approaching. As we arise in No. 4, and pass up into No. 5, there is an evident increase in the number of gasteropoda, indicating shoal waters. We have already remarked their peculiar Tertiary aspect, which seemed to point directly to that epoch, showing that it was not far distant. We may now ask the cause of this apparent approach to land, as foreshadowed by the lithological as well as the paleontological characters of the Upper Cretaceous formation No. 5. We think that the facts indicate that during the deposition of this formation the western portion of the continent was slowly rising above the ocean level, the waters on the one side receding toward the Pacific, and on the other toward the Atlantic, introducing the great Tertiary epoch which had already been foretold in the Cretaceous. At the commencement of the Tertiary period, throughout the central portions of the continent, lakes, estuaries, &c., more or less salt, at length becoming brackish, and finally fresh water, existed, and a new flora and fauna were introduced. The subterranean expansive power which was quietly lifting up the country still continued, although no bursting of the earth's crust had commenced. These brackish water-deposits, which appear to mark the dawn of the Tertiary period in the West, are distributed quite widely over the central portions of the Rocky Mountain district, and then, by a general subsidence or a vast increase of fresh water, the true lignite deposits spread themselves over large areas and probably covered much of the country now occupied by the mountain ranges, and were doubtless more or less intimately connected with the Tertiary beds on the Pacific coast. What barriers separated them from the Tertiary formations along the Pacific it is impossible from our present limited knowledge of the geology of the intermediate region to determine.

We have remarked that the probable period of the bursting of the earth's crust which resulted in the formation of those abrupt mountain crests or ridges, occurred somewhere near the close of the accumulation of the true lignite deposits. We believe this for the following reasons: Whenever we observe the lignite beds in the vicinity of the mountain ranges we find them more or less inclined in the same direction with the older fossiliferous rocks, though, as a general rule, dipping at a smaller angle, because more remote from the axis of the disturbing power. Of course, as the land was slowly elevated toward the surface of the waters, the newer Tertiary beds would be subjected to the erosive action of water first, and thus continuing downward, as the mass was slowly rising, until the granitic nucleus was exposed. The Tertiary rocks, being composed for the most part of loose, yielding material, sands, clays and lignites, would be worn away from the surface for some distance from the axis of elevation. Although the lignite Tertiary beds are developed in full force all along the base of the larger ranges of mountains, it is not unlikely that some of these ridges formed barriers or lofty shores to these great Tertiary lakes. It would seem as if this country during the Tertiary period was not unlike the Undine region of the north, so called by the geographer Nicollet on account of the great number of fresh-water lakes distributed over that district.

Near the Black Hills these beds are worn away from the immediate base of the mountains, and it is doubtful from any proofs that we can now obtain whether the Tertiary lake extended over the country at that time occupied by the Black Hills. West of this range, the lignite Tertiary beds incline from the western slope 5 to 10 degrees. All along the Bighorn Mountains, the same features, only more strongly marked, are seen. These beds often lie quite high upon the slopes of the mountains, conforming to the Cretaceous rocks and sometimes inclining at a high angle. Between the western extremity of the Bighorn Range and the Sweet Water Mountains on the North Platte

they are more disturbed than at any other locality. The lignite Tertiary strata are nearly vertical and the hard layers of sandstone or limestone extend in long projecting lines across the country, while the intermediate yielding beds of clay, sand, and lignite are smoothed and leveled by atmospheric agencies and clothed with a thick turf of grass. All along the Laramie Range, from the Red Buttes to Deer Creek, until the lignite beds are concealed by the White River Group, the same features are seen, though the strata incline less, being more remote from the anticlinal crest. On both sides of the Wind River Mountains the same phenomena occur, and other examples might be cited pointing to the same conclusions, but enough has been said to show that it is probable that the lignite Tertiary beds partook of the same movements that have elevated the older fossiliferous rocks. We therefore infer that the fracture of the earth's crust in this portion of the West, by which the nucleus of the mountains was revealed, occurred near the time of the accumulation of the lignite deposits or at the close of that epoch.

Again, although there is not a strict unconformability between the true lignite beds and the Wind River Group, the latter incline in the same direction, only at a much smaller angle. Near the source of Wind River the Wind River Group rests directly upon Cretaceous formation No. 2. At this point the Cretaceous rocks incline from 10° to 25° , while the Wind River beds dip from 1° to 5° . As we ascend the valley of Wind River towards its source, we pass, for a long distance, the steeply inclined Cretaceous and Jurassic rocks, along the margins of the mountains on our left hand, while on our right, but a few hundred yards distant, the naked, almost vertical walls of the lower portion of the Wind River Group* are seen, the strata, however, seldom inclining more than one degree.

The same examples may be observed on the west side of the Wind River Mountains, where the Wind River beds lie high upon the sides of the western slope in a very slightly inclined position and in some localities covering the very summit, showing clearly that even the dividing crest of the mountains was beneath the waters during the deposition of this group. Along the margins of both the Wind River and the Big-horn Mountains these beds seem to have risen in an undisturbed or in a nearly horizontal condition. We have already expressed the opinion in a previous paper,† that the Wind River Group was intermediate in age between the lignite Tertiary and the White River beds, and in point of time filled up a chronological chasm. We have inferred this from the fact that these beds seem to possess paleontological and lithological characters intermediate between the two. They contain casts of a species of *Vivipara* which is undistinguishable from *V. trochiformis*, and fragments of a *Trionyx* apparently the same with that occurring in the lignite beds, also fragments of a *Testudo* which, so far as we can determine, is identical with the *T. Nebrascensis* of the White River beds. If we look also at the composition of the Wind River beds, we find that their light color, indurated arenaceous and argillaceous character, and their general appearance after erosion, favor the correctness of the inference in regard to their intermediate position. From the facts before us in regard to this group, we conclude that even after the crust broke, the country continued slowly rising while the Wind River deposits were accumulating, and that the upper portions when not eroded away were elevated high upon the sides of the mountains in a nearly horizontal position.

Again, the White River beds hold a similar position with reference to the lignite formations as the Wind River Group. They are seldom disturbed, and only in a few instances do they incline as much as 5° . They, however, occur high up on the mountain slopes along both sides of the Laramie Range, showing that they partook of the gradual elevation of the country, after the crust was broken and the mountain district began to approach its present configuration. On the west side of the Black Hills, where the White River beds probably began their origin, we find only the lower strata of this group, usually reposing directly upon Cretaceous rocks, though in a few localities upon lignite formations. But as we descend south and southwestward, these lower beds disappear and more recent ones take their place, until they pass into the Pliocene sands of the Loup River Group, and then, in turn, still farther southward, are lost in the Loess or yellow marl deposits. We can only account for these phenomena on the supposition that this great Tertiary fresh-water lake had its commencement in the White River Valley, and as the Black Hills, and of course the whole Rocky Mountain district, arose slowly toward its present elevation, the waters gradually receded southward and southwestward, and then more recent beds continued to be accumulated, until this formation spread itself over the vast area which it now occupies. We thus think that, by means of these Cretaceous and Tertiary deposits of the West, we can yet trace step by step the progress of that grand development which has given the present geographical conformation to the West, and originated the fountains from which flow those mighty rivers which may well be called the commercial arteries of the American continent.

Another illustration of the gradual and long-continued rise of the country may be found in the immense chasms or cañons which have been formed by the streams along

* Same as the Wahsatch Group, 1878.

† See this Journal, vol. xxxi, March, 1861.

the mountain sides. We can only account for them on the supposition that as the anticlinal crest was slowly emerging from the sea, the myriad sources of our great rivers were seeking their natural channels, and that these branches or tributaries began this erosive action long before the great thoroughfares, the valleys of the Mississippi and the Missouri, were marked out. The erosion would go on as the mountains continued slowly rising at an almost imperceptible rate, and in process of time the stupendous channels which everywhere meet us along the immediate sides of the mountains would be formed. If we examine the barometrical profiles, already referred to, we see at a glance that in traversing the country from the Mississippi to the foot of the mountains the ascent is very gradual, but increases as we approach the upheaved ridges. In an equal proportion will the rapidity and consequently the erosive power of the streams be increased so that we may readily account for those grand displays of the erosive action of water which occur so frequently along the mountain sides. Eastward from the mountains, beyond this immediate influence, the descent is so gradual that the Missouri flows quietly along over its yielding alluvial bed, transporting its sediments to the Gulf of Mexico.

That the progressive elevation of the country continued up to our present period, or at least until near the time of the deposition of the most recent superficial deposits, we think we have evidence derived from the terraces, which are seen all along the streams. The elevation of these terraces increases as we approach the sources of the rivers, averaging from a few feet to 150 or 200 feet in height. This subject will be discussed more fully in a future article.

We conclude, therefore, that the barometrical profiles, constructed from explorations across our continent, and geological data, indicate a long-continued quiet expansion of the earth's crust, commencing toward the close of the Cretaceous epoch and extending even to our present period; that near the close of the accumulation of the Tertiary lignite deposits, the crust of the earth had reached its utmost tension, the long lines of fractures had commenced, and the anticlinal crests of the mountain ranges were marked out. In a previous paper in this Journal, we remarked that there is no unconformability in any of the fossiliferous sedimentary strata in the Northwest, from the Potsdam sandstone to the summits of the true lignite Tertiary. We believe, therefore, that the elevated ridges which form the nuclei of the mountain ranges began to emerge above the surface of the surrounding country near the close of the Eocene period. We think also that the evidence is clear that there were periods of subsidence and repose; but the thought which we wish to illustrate is, that there was a slow, long-continued, quiet, upward tendency which began near the close of the Cretaceous epoch and culminated in the present configuration of the western portion of our continent near the commencement of our present period.

WASHINGTON, D. C., *January 1, 1862.*

ART. XXXIV.—REMARKS ON THE GEOLOGICAL FORMATIONS ALONG THE EASTERN MARGINS OF THE ROCKY MOUNTAINS.*

BY F. V. HAYDEN.

[From the American Journal of Science, May, 1868.]

On several former occasions I have described the different geological periods represented by the rocks uplifted along the margins of the Rocky Mountains and especially along the eastern slope. Examinations over a great extent of country in considerable detail, from latitude 49° south nearly to the Arkansas River, have shown me that quite marked lithological and paleontological changes occur in them all as we proceed from the north southward. It is the purpose of this article to note this fact somewhat more in detail than hitherto. Beginning with the nucleus of the Rocky Mountains at any point along the eastern range, we find it composed of massive granite rocks, mostly red feldspathic, but not unfrequently gray or other shades of color; then a series of metamorphic rocks (as they are usually called, though no doubt all the granites should be included with them), syenites, diorites, clay, mica, and hornblende slates, and igneous rocks of various kinds here and there.

Proceeding outward, we find the Silurian period represented by the Potsdam sandstone, Devonian wanting, then Carboniferous, Red Beds (Triassic?), Jurassic, Creta-

* This article refers only to the eastern ranges of the Rocky Mountains, extending south to the Arkansas. The same remarks may or may not apply to other portions.

ceous, and Tertiary, all connected together in the regular order of sequence, and all but the most recent Tertiary in strict conformity. The Tertiary deposits do not exhibit any marked change either in their mineral or fossil contents from the northern portion of our domain to the Arkansas, but the Cretaceous beds present several quite marked changes. Nos.* 5 and 4 maintain their peculiar characters as shown on the Upper Missouri, wherever they are exposed all along the eastern slope, except that they contain comparatively few fossils, yet a few characteristic species are found wherever these beds are seen, which identify them. On the Missouri River, No. 3 attains a great thickness, 400 to 600 feet, presenting massive escarpments of yellow chalk, and it can be traced all the way across the prairie country lying between 98° and 100° longitude. At Forts Hayes and Wallace on the Union Pacific Railway, Eastern Division, there are massive beds of this chalk which is sawed into building blocks with a common saw, and in many instances it is nearly as white as our chalk of commerce and might be used for the same purposes.

The two characteristic species of fossils of this division are found everywhere, *Ostrea congesta* and *Inoceramus problematicus*. All along the slope of the mountains No. 3 still retains its chalky nature, but becomes quite shaly, none of the layers ever becoming more than one or two inches in thickness. This is the case at the sources of the Missouri along the Bighorn and Wind River Mountains also, from the South Pass to Pike's Peak, and on the western slope wherever this bed is exposed. Near Denver, at Marshall's coal-mine, No. 3 has been changed by heat into a grayish compact limestone, quite hard and brittle in its fracture, which makes an excellent flux in smelting ores. But this change is local, for 16 miles north of this point it presents the same laminated character. It seems that No. 3 loses its massive chalky character, by which it first attracted attention on the Missouri River, in its westward extension, so that along the margins of the mountains, except in one locality, it cannot prove of any economical value, while between 98° and 100° longitude it becomes very useful not only for lime, but also for building purposes. No. 2, like Nos. 4 and 5, retains its dark plastic clay character everywhere that it has been observed, but, like the others, it is not nearly as well developed in Colorado as on the Upper Missouri. Near Fort Benton it attains a thickness of 200 to 400 feet, while in Colorado it is not more than 50 to 150 feet. Between longitude 96° and 99° No. 1 retains its deep rust-red sandy characters with dicotyledonous leaves from the Missouri River to the Arkansas, but nowhere along the margins of the mountains from latitude 49° to Pike's Peak have I ever seen any well-defined palæontological proof of its existence. Near Fort Benton are a series of Cretaceous beds containing some seams of impure lignite and numerous species of fossils, not one of which is identical with those so abundant in Nos. 4 and 5 lower down on the Missouri. These beds have been placed provisionally in the general section as a portion of No. 1, but the region about Fort Benton needs a more careful examination before any positive conclusions can be arrived at. Around the Black Hills is a bed of massive siliceous rocks, some layers forming a pudding stone, which in some localities takes the name of fortification rocks. These hold a position between No. 2 Cretaceous and the Jurassic marls. The same are seen along the margin of the Bighorn Mountains, in which I observed a bed of impure lignite, an abundance of silicified wood, and some uncharacteristic Saurian bones. From the Wind River Mountains to Pike's Peak these same siliceous and pebble cemented rocks occur holding the same geological position, forming, as it were, beds of transition between the Cretaceous and the Jurassic periods. I have carefully examined these rocks for hundreds of miles and have never yet detected any organic remains, animal or vegetable, in them.

The Jurassic beds, as revealed along the mountains, possess peculiar and marked lithological characters, so that having identified them by the fossils in one locality we can trace them over great areas. They were first shown to exist in the West in the form of a zone engirdling the Black Hills. They here attain a thickness from 200 to 300 feet at least, and from the beds in this locality alone have fossils enough been collected of such unmistakable Jurassic types as to prove their existence beyond a doubt. But these beds have also been shown, since they were first made known in the Black Hills, to be exposed along the margins of the Bighorn and Wind River Mountains near Red Buttes, on North Platte, and in numerous localities in the Laramie Plains, and westward to Fort Bridger. So numerous are the species now known from the West and so close are the affinities of most of them to well-known Jurassic types that it is not necessary for me in this place to detail the evidence in support of that statement.

It is sufficient to remark that the Jurassic system is quite plainly represented along the margins of the different ranges of mountains north of latitude 42°, but proceeding southward from Deer Creek on the North Platte, the Jurassic beds diminish in force, until near Cache la Poudre it becomes doubtful whether they are represented at all.

* The different divisions of the Cretaceous period, as shown on the Missouri River, have received geographical names, as Fort Benton Group, &c., but I use the old divisions by figures for brevity.

At this point there is a thin bed, perhaps 20 to 50 feet in thickness, of greenish-gray arenaceous marl overlying the Red Beds, which seem to occupy the place of the Jurassic. This seems to thin out more and more as we proceed southward toward the Arkansas. From Deer Creek 100 miles north of Fort Laramie to Denver, a distance of 400 miles, I have searched in vain for any organic remains in the rocks which appear to represent the Jurassic period of the Black Hills, Bighorn and Wind River Mountains. In the Red Beds or supposed Triassic no organic remains have been found north of the Arkansas, and they do not differ much lithologically in their southward extension, except that they seem to be much thicker and more gypsiferous northward. In the far north the Carboniferous rocks are in many localities 500 to 1,500 feet in thickness, and even as far south as the Red Buttes the massive beds of limestone, with true Carboniferous fossils, are exposed 500 to 1,000 feet thick, and are quite distinct from the red or variegated beds. But as we proceed southward from this point the Carboniferous limestones seem to lose their usual lithological characters and the Red Beds prevail. At the head of Pole Creek on the eastern margin and in the Laramie Plains west, the Carboniferous rocks are mostly of a red arenaceous character, with a few layers 2 to 10 feet in thickness of whitish or yellowish limestone. From these limestones I collected *Productus Prattenianus*, *Athyris subtilita*, and other well-known Carboniferous forms.

Above these Red Beds, which contain intercalated layers of limestone, is a considerable thickness of purely red arenaceous beds, but in studying all these rocks with some care from Pole Creek nearly to Pike's Peak, I could not separate the Red Beds from the Carboniferous by any break in continuity, and I was rather inclined to the opinion that inasmuch as a large portion of the gypsiferous or variegated beds could be shown to be Carboniferous, they might possibly all be included in that period. The Potsdam sandstone, the only portion of the Silurian era ever detected along the eastern slope of the Rocky Mountains north of the Arkansas, seems to fade out entirely south of the Red Buttes on the North Platte. It is well defined around the Black Hills, Bighorn, and Wind River Mountains. Near the Red Buttes there is a bed of siliceous pudding stone resting on the metamorphic rocks which may be the Potsdam in its southern extension, but south of Fort Laramie to Pike's Peak it is somewhat doubtful whether any trace of it exists. If it occurs at all it is a very thin layer, for the most part concealed. So far as I could determine, the Carboniferous rocks rest directly (though not conforming) upon the metamorphic rocks. There is also some change in the nuclei of the mountain ranges southward. At the north the feldspathic and the gray granites prevail, but southward the syenites and igneous rocks form the central portions of the mountains almost entirely. It is rare to see true granite.

The above remarks, founded on observations that have been made over a very great extent of country through a period of many years, lead me to the following conclusions:

1st. That all the formations of the West undergo more or less change both in their mineral and fossil contents in their extension toward the west and south. They all seem to reach their culmination not far from the central portion of the great area drained by the Missouri, and lose to a great extent their distinctive characters beyond its limits.

2d. The Potsdam sandstone and the Jurassic beds present more remarkable changes than any of the others. While north both these formations are well marked, both lithologically and palæontologically in their southward extension they gradually fade out, so that south of Fort Laramie to Pike's Peak it becomes a matter of doubt whether they exist at all. The inference therefore is that these groups of rocks are not well defined, if they occur at all south of the Arkansas. In support of this statement is the fact that although this southern region has been traversed in every direction by multitudes of explorers for thirty years past, among whom have been geologists of high reputation, yet south of latitude 40° not a single animal fossil has ever been detected with Jurassic affinities, and it is quite doubtful whether any have been found with Triassic or Permian relations;* even the few plants that have been found are doubtful in their affinities and are regarded as probably Cretaceous or Permian. I have made these remarks from the fact that all the observations that have been made by explorers in the West during the past will, ere many years, be put to the rigid test of a most careful scrutiny, and an error by whomsoever made, though sustained by the highest authority in the land, will fall to the ground before the light of true science as the dead bark from a tree. The ease with which the Rocky Mountain region can soon be reached, in a few years, when our great national highways are completed to the Pacific, will induce the best geologists in this country and in Europe to visit them, and the many intricate problems of Rocky Mountain geology must be solved.

* I do not wish to be understood as saying that the Jurassic rocks do not occur, south of the Arkansas, as well as the Permian and Triassic, for there is ample room for their fullest development, but no evidence has ever yet been obtained of its (Jurassic) existence, although the country has been so long traversed by explorers. The evidence, so far as it goes, would seem to be against its occurrence at all.

The great school of mines, which will no doubt be soon established in the heart of the mining districts of the Rocky Mountains, must gather around it able men who will either sustain or reject the observations of other investigators who have examined the country under less favorable auspices.

THE PRIMORDIAL SANDSTONE OF THE ROCKY MOUNTAINS IN THE NORTHWESTERN TERRITORIES ON THE UNITED STATES.

BY DR. F. V. HAYDEN.

[From the American Journal of Science and Arts, vol. xxxiii, Jan., 1862.]

We have attempted in this paper to present as clear and connected an account as the known facts will permit, of the Primordial rocks west of the Mississippi, more especially those of the northwest, west of longitude 96°. The Potsdam sandstone of the New York series is the division of the Primordial zone of Barrande, mainly represented in the Rocky Mountain district, and is that part alluded to unless otherwise mentioned.

In speaking of the geographical distribution of the Potsdam sandstone reference will be made to localities to the eastward where it has furnished most abundant and satisfactory testimony in regard to its age. We will, in the first place, present more in detail such facts as we have been able to obtain by personal observation in the field, and by the aid of these and the statements of reliable explorers we hope to give some idea of the geographical extension of this wide-spread formation in the West.

Our first knowledge of Primordial rocks west of the Missouri River was obtained in the summer of 1857, during the exploration of the Black Hills of Nebraska, by an expedition under the command of Lieut. G. K. Warren, Topographical Engineers. The more important facts, with the determination of the fossils, were published by Mr. Meek and the writer in March, 1858.*

By reference to the general map of the country west of the Mississippi, recently published under the auspices of the War Department, we find that the Black Hills lie between the 43d and 45th degrees of latitude, and the 103d and 104th degrees of longitude, and occupy an area about 80 miles in length, and from 30 to 50 in width. According to Lieutenant Warren the shape of the mass is elliptical and the major axis trends about 20° west of north. The base of these hills is about 2,500 to 3,000 feet, and the highest peaks 6,700 feet above the ocean. The entire range is clasped, as it were, by the North and South Branches of the Shyenne River, the most important stream in this region. The North Branch passes along the north side of the range, receiving most of its waters from it, but taking its rise far to the westward near the sources of Powder River, in the "divide," between the waters of the Yellowstone and those of the Missouri. The South Branch also rises in the same "divide," flows along the southern base of this range, receiving the waters of numerous tributaries which have their sources in it.

Again, by referring to the map above alluded to, we ascertain that the Black Hills form the most eastern outlier of the great Rocky Mountain Range as well as the first point where rocks older than the Carboniferous are exposed to the eye after leaving the Missouri westward. These hills would seem to constitute an independent elevation, so far are they removed from other ranges, were it not for a low anticlinal which may be traced across the plain country southward, connecting them with the Laramie Mountains near Laramie Peak. The central portion is composed of red feldspathic granite and stratified Azoic rocks, and resting unconformably upon, and forming a zone or belt around the ellipsoidal nucleus, are a series of variable, reddish ferruginous sandstones, which by their organic remains furnish the most reliable evidence that they belong to the Potsdam period.

As observed in and around the Black Hills, the Potsdam sandstone presents a great variety of lithological characters. In many localities it is composed of a conglomerate of more or less water-worn pebbles, mostly whitish crystalline quartz, but representing to a greater or less extent the different varieties of the changed rocks beneath. The pebbles vary in size from an eighth of an inch to four inches in diameter cemented together with a silico-calcareous paste. Some of the pebbles are scarcely worn, while others are quite smooth. At the locality where the following section was taken, the sandstone is of a gray color tinged with red at the base, but ascending it becomes more

* Proceedings of the Academy Nat. Sci., Pa., March, 1858.

ferruginous until its color is a dark dull red, and its texture a coarse-grained friable sandstone with many quartzose and micaceous particles and some calcareous matter. Seams two to four inches in thickness are very nearly composed of shells of the genera *Lingula*, *Obolella*, &c., which, though quite fragile in their nature, are so well preserved as to be easily identified. The following section taken near the central portion of the Black Hills exhibits Carboniferous rocks and the Potsdam sandstone conforming to each other, but the latter resting discordantly upon the Azoic stratified and granitic rocks.

	Feet.
1. A hard, compact, fine-grained yellowish limestone of an excellent quality, passing down into a yellow calcareous sandstone, quite friable. Fossils: <i>Spirifer Rockymontana</i> , Marcou; an <i>Athyris</i> , like <i>A. subtilita</i> , <i>Cyptoceras</i> , &c.....	50
2. Loose layers of very hard yellow arenaceous limestone with a reddish tinge, underlaid by a bed, six to eight feet in thickness, of very hard blue limestone; the whole contains great quantities of broken crinoidal remains with cyathophylloid corals and several species of brachiopoda.....	40
3. Variegated sandstone, of a gray and ferruginous red color, composed chiefly of grains of quartz and particles of mica cemented with calcareous matter. Some portions of the bed are very hard, compact, siliceous; others a coarse friable grit; others a conglomerate. Fossils: <i>Lingula prima</i> , <i>L. antiqua</i> , <i>Obolella nana</i> , and fragments of a trilobite, <i>Arionellus? Oweni</i>	50 to 80
4. Stratified Azoic rocks standing in a vertical position for the most part.	

Leaving the Black Hills in a direction a little west of south, we follow an anticlinal valley to the Laramie Mountains with which the Black Hills seem thus obscurely connected. The evidence, so far as it goes, appears to indicate that the same force which elevated the one raised the other, and that the events were synchronous. We do not observe the lower rocks after leaving the Black Hills until we reach the source of the Niobrara River, where we find a series of horizontal strata resting upon the vertical edges of Azoic clay slates and schists, which from their lithological characters and position doubtless belong to the age of the Potsdam sandstone, though no organic remains could be found. The following section shows the descending order of the beds.

	Feet.
1. Quartzose sandstone, some parts filled with pebbles	22
2. Red argillaceous slate.....	5
3. Sandstone, dull reddish ferruginous, like bed 1, above	37
4. A series of strata more or less inclined, composed of gneiss with silvery mica in large plates, micaceous and talcose slates, white quartz, &c.	

We have no doubt that the Potsdam sandstone occurs in the form of an outcropping belt all along the Laramie range of mountains, though, after a thorough search we were unable to discover any organic remains. Having once fixed the position and age of a formation, as the Potsdam sandstone is established in the Black Hills, we may rely with considerable confidence upon the physical characters and stratigraphical position to determine the age of rocks in the same district of country. We have on these grounds regarded certain rocks along the Laramie Range as of this age. In the first ridge of elevation west of the trading post on La Prele Creek, about 60 miles northwest of Fort Laramie, is a series of rocky layers 50 feet in thickness, reposing unconformably upon red feldspathic granites, mica schists, and clay slates. The lower portion is a fine-grained subcrystalline quartzose rock, partially metamorphosed, passing up into a friable sandstone arranged in thin layers, with the laminae quite oblique, overlaid by a considerable thickness of conglomerate. The dip is about 20° east. Resting upon these supposed Potsdam rocks at this point and inclining at about the same angle are layers of limestone, containing numerous fossils which prove them to belong to the Carboniferous age.

Again, further southward along the same range, near the source of the Chugwater River we find the same limestones well developed, containing some Carboniferous fossils, and underneath them and inclining in the same direction is a group of strata of a brick-red color, more or less changed by heat, holding the position of the Potsdam sandstone in other localities. In some places these rocks are so metamorphosed by heat from beneath as to appear like a red feldspathic granite, and in others, like a reddened granular sandstone containing numerous unchanged masses of quartz.

At the Shyenue Pass, we observed the well-known Carboniferous rocks, inclining about 13°. Beneath them is a considerable thickness of red marls and laminated sandstone, and still farther down and inclining 26° is a quartzose sandstone, full of water-worn pebbles, passing down into layers which at a distance look like indurated clay, but which, on closer examination, proved to be an aggregation of quartz and feldspar crystals cemented with a calcareous paste. At another locality we have the following characters: (1) a grayish quartzose sandstone, 12 inches; then descending, (2) laminated granitoid rock, 2 feet; (3) compact reddish ferruginous granitoid mate-

rial, 8 feet; (4) a considerable thickness, perhaps 50 feet, of feldspar crystals cemented with a calcareous paste, inclining 13° . Though we could find no organic remains in these supposed Potsdam rocks along the Laramie range of mountains, yet their stratigraphical position and physical characters leave very little room for doubt as to their age.

Although we think that the known facts justify the inference that the Potsdam sandstone is revealed in an outcropping belt all along the margins of the Bighorn Range, resting unconformably upon the Azoic rocks beneath, yet we were unable to make a careful examination except in a few localities. We could see, however, in the loose material scattered along the foot of the mountains, washed down by the streams, masses of sandstone closely resembling the rock under consideration. Near the source of Powder River we penetrated to the nucleus of the mountains and found a series of sandstones underlying the Carboniferous limestone and resting unconformably upon the schistose and clay slates of the Azoic series, in very nearly the same manner as in the Black Hills before described. The Potsdam sandstone in this region is quite well developed, attaining a thickness of 200 feet, and exhibiting its usual variable lithological characters. Near the base, the rock is of a reddish flesh-color, very compact, composed of an aggregation of quartz pebbles, varying in size from a minute grain of quartz to masses half an inch in diameter, cemented with siliceous matter. Portions of the rock contain many pebbles of jasper which appear to have been slightly worn before being inclosed in the calcareous paste. Passing up we find the rock to be arranged in thin ferruginous layers, slightly calcareous but mostly siliceous, with many small particles of mica. These thin layers are also charged with fossils, as *Lingula antiqua*, *Obolella nana*, *Theca gregarea*, and *Arionellus? Oweni*. Many of the slabs were covered with fucoidal markings and what appear to be tracks or trails of worms. The upper part of this formation as seen in the Bighorn Mountains is a rust-color granular sandstone, the small siliceous grains being held together by a calcareous cement which causes the rock to effervesce briskly on the application of an acid. In tracing the different fossiliferous rocks, at this locality, from the nucleus outward, we can see a good illustration of the strict conformability of all the formations from the Potsdam sandstone to the summit of the Lignite Tertiary. We see here the evidences of only two great periods of disturbance, the one occurring prior to the deposition of the Primordial sandstones which inclined the Azoic rocks, and the other at the close of the accumulation of the true Lignite Tertiary deposits when the mountain nuclei began their elevation above the surrounding country.

Along the Wind River Mountains, which extend far northward and form the dividing crest of the great Rocky Range, the Potsdam sandstone is quite thinly represented and yielded no organic remains to a somewhat hasty examination. Near the junction of the three forks of the Missouri, alternate strata of clay, limestone, and compact siliceous rock occur beneath well-marked Carboniferous beds. These rocks are evidently of ancient date, and were deposited in quite shallow water, as is shown by numerous thin layers of rock covered with trails of worms and fucoidal plants. These facts thus enumerated would seem to indicate with considerable certainty that this rock once spread over the area occupied by the central range of the Rocky Mountains, doubtless extending far north beyond the limits of the territories of the United States. The predominance of eruptive rocks as we pass northward along the main range of the Rocky Mountains greatly increases the difficulty in tracing out the lower fossiliferous beds.

We have now described this member of the Primordial zone as far as it has occurred within the limits of our own observations. It now becomes an interesting point to determine its geographical extension in the West, and for that purpose we propose to summon all the evidence at our command. The proof will not, however, be as satisfactory as could be desired, owing to the general absence of organic remains.

If we now extend our examinations far north into the Hudson's Bay territory, we find that much interesting information has been obtained in regard to the Silurian rocks of that region, but not accompanied by the evidence which gives to the knowledge acquired that definiteness which is desirable. It is probable, however, that when not eroded away or concealed by more recent deposits, the Potsdam sandstone and, perhaps, rocks of more recent Silurian age occur all along the margins of the Rocky Mountains to the Arctic Sea. To what extent still more recent or Upper Silurian occur over this vast region our present knowledge will not enable us to determine, but the few fossils which have been collected indicate that the great Silurian Sea extended over much of the Northwest. Sir John Richardson mentions the existence of conglomerates and sandstones to which succeed limestones and clay slates, probably of Silurian age, and granite. We know that in many localities in the mountains, about the sources of the Missouri, the rocks of the Potsdam period are composed of sandstones and more or less coarse conglomerates. Underneath are clay slates and very hard limestones of Azoic age, and to these succeed granite. As we proceed northward the evidence of true Lower Silurian rocks gives place to those of Upper Silurian age, which have furnished a good supply of organic remains. According to Mr. Isbister, these rocks are

well developed around Hudson's Bay, Great Slave Lake and River, Lake Winnipeg, &c. He cites numerous fossils as belonging to Silurian types, but the species are too numerous to mention here. We may simply state that, so far as our knowledge extends, there is no evidence which renders it certain that any portion of the Primordial zone of Barande occurs north of latitude 49° , though it is quite probable that when carefully sought after it will be found revealed along the margins of the mountain elevations to the Arctic Sea.

As we proceed southward along the line of the mountain ranges toward New Mexico, though no fossils have been found, we feel safe, acting upon our previous knowledge, in regarding the evidence as quite clear that this sandstone occurs in numerous localities. In our investigations of the geology of the West, we have relied on three tests of evidence, viz:

First. Palæontological evidence, which is the most important and in most instances the only conclusive proof.

Second. Stratigraphical position.

Third. Lithological resemblance.

The last two tests are all we have to rely upon to determine the extension of the Lower Silurian rocks as we proceed southward from the Black Hills. Having traced rocks which we regard of this age south to a point on a parallel with the Salt Lake district, we present the following resemblances in lithological characters as probable evidence of their existence in Utah Territory:

Professor Hall, in Stansbury's report, in several places describes a bed of sandstone corresponding in its lithological characters and geological position to the Potsdam sandstone in the Black Hills. Stansbury Island (Great Salt Lake), the summit of which is 3,000 feet in height, is capped with Carboniferous limestones, which rest upon a coarse sandstone or conglomerate. Again, north of Great Salt Lake City the limestone overlies a coarse sandstone or conglomerate, which almost invariably accompanies it. In several localities, as at Promontory Point and near Mud Island, the metamorphic strata appear to be overlaid by a coarse conglomerate or coarse sandstone, which is partially altered and assumes the character of a quartz rock. Marcou, in the [third volume of Pacific Railroad reports, page 156, mentions a formation occurring near the Aztec Mountains. He says: "We traveled seven miles upon the granite, then a bed of red sandstone; above this the beds of limestone and gray sandstone belonging to the mountain limestone." The following day "we traveled three miles on the granite, the remainder on the Old Red Sandstone." An excellent diagram, illustrating a section of the rocks near the mountains above alluded to, accompanies Mr. Marcou's remarks, which would apply equally well to similar beds in the Black Hills. The great uniformity in the physical characters of the different formations over large areas, which have been examined with care and definite knowledge obtained, leads us to place some degree of confidence in the above statements. From latitude 49° to 40° south, and east of the dividing crest, we have the Potsdam sandstone, then, immediately above it, with remarkable uniformity, a series of beds of limestones containing true Carboniferous fossils. We infer, therefore, that both northward and southward the same uniformity of geological structure continued, unless we have evidence to the contrary.

The observations of Dr. J. S. Newberry render it quite probable that rocks of Lower Silurian age occur along the valley of the Colorado. The following paragraphs from a letter addressed to the writer by Dr. Newberry are extracted by permission:

"I have never collected any unmistakable Silurian fossils in the far West. I am perfectly satisfied that the lower stratified rocks of the Colorado section are Silurian, but the only fossils they contain are too much changed to be satisfactorily identified.

"The lower rocks above the granite are coarse, red sandstones, lithologically and stratigraphically corresponding to your Potsdam of the Black Hills; above these a great thickness, over 300 feet, of shales, limestones, and sandstones, and then the first Carboniferous fossils.

"Just above the Potsdam (?) is a limestone filled with corals, apparently *Chætetes lycoperdon*, or rather the same with that so common in the Trenton, with branching stems, formerly included in *C. lycoperdon*, but evidently distinct. On the mountains bounding the Colorado basin the Carboniferous rocks rest directly upon the granite."

We have now considered the Potsdam sandstone in its geographical extension over the West as far as we are acquainted with its existence, and have pointed out the localities where it is revealed. Along the Mississippi Valley and eastward most important discoveries are made annually, which show it to be developed everywhere when the conditions are favorable for its exhibition. It is true that in some localities beds of more recent age repose directly upon Azoic rocks, but in these cases may not the Primordial sandstones lie concealed or be eroded away? The researches of Dr. B. F. Shumard in Texas have shown that the Primordial zone attains a considerable thickness in the Southwest, and is charged with an interesting group of its peculiar fossil forms. The examination of others proved its existence all along the Atlantic coast extending westward from Canada to Wisconsin, Iowa, and Minnesota, and thus a great period in the world's geological history, formerly supposed to possess but a

meager fauna, the first representatives of life on our globe, has already yielded very abundant and varied forms. The following is a summary of the principal facts and conclusions from our knowledge of the Potsdam sandstone in the far West:

1. We have the most undoubted evidence of the existence of that division of the Primordial zone, which is the equivalent of the Potsdam sandstone of the New York series in two important ranges of mountains, outliers of the great Rocky Mountain chain. All the fossils are well known Primordial types, and at least two species are identical with forms occurring at the typical localities of this period in the Eastern States. The others are forms closely allied to species found in the equivalent rocks both in this country and in Europe.

2. This division of the Primordial zone, as a rule, appears as an underlying formation, when the conditions are such as to expose it to view, from the Atlantic coast to the crest of the Rocky Mountains, and probably farther. Localities doubtless do occur where rocks of more recent age than the Potsdam sandstone rest directly upon the Azoic or granitic rocks below; but these facts do not militate against the general rule. Having proved its existence in two important ranges of mountains from its organic remains, by means of lithological resemblance and stratigraphical position, we have with considerable confidence traced it by personal observations throughout the mountainous district comprised within latitude 40° and 49° and longitude 103° and 112° . From these facts and the observations of reliable explorers in different parts of the West, we think we are warranted in the belief that this rock is exposed all along the margins of the Rocky Mountain Range when not eroded away or concealed by overlying formations. How far westward of the dividing crest of the Rocky Mountains it extended we have no data for determining, nor can we hope to have, where eruptive rocks seem to predominate. As yet we have not known the Potsdam sandstone to be exposed, except along mountains with a true granite nucleus.

3. Wherever this rock occurs, we are struck not only with the peculiarity of the organic remains, but also with the remarkable uniformity in the nature of the sediments and the general lithological appearance, compared with its equivalents in more eastern localities. We do not believe this to be due to currents of water bearing the materials from far eastern lands, but that the sediments were obtained from the vicinity, and that the uniformity in their character arises from the nature of the underlying rocks from which they were derived.

The Potsdam sandstone is everywhere composed of calcareous and silicious matter, granular quartz, ferruginous material in great quantities, also pebbles of various kinds worn and unworn, with now and then seams and layers of argillaceous material. We find in the Azoic rocks below an abundance of limestone, clay slates, mica schists, seams of white quartz, granite composed largely of feldspar, and we can readily detect the source of the fragmentary masses which form the conglomerates. We also know that while nuclei of certain mountain ranges on the eastern slope are composed of a massive feldspathic granite, a great thickness of more recent or overlying rock, forming the lower and smaller ridges, are composed of a kind of "rotten granite," which is so full of the hydrated oxide of iron that it readily decomposes on exposure to the atmosphere. We therefore believe that the source of all the sediments composing the Primordial rocks in the West can be traced to the underlying rocks in the vicinity.

4. There are no indications of long-continued deep water in the Primordial sea, so far as the West is concerned. If we examine the lower part of the Potsdam sandstone, we find that the physical conditions which ushered in this period were quite violent, as is shown by the conglomerate character of the rock. Passing upward, this conglomerate graduates into a rock composed of granules of quartz and small plates of mica cemented with calcareous matter, and about midway in the formation we have a fine, very ferruginous calcareous sandstone, in thin layers, filled with fossils in a very good state of preservation. The condition of the organic remains, the fineness of the sediment, and the perfect horizontality of the laminae of deposition indicate a short period at least of quiet water. As we continue upward the rocks begin to show the shifting nature of the currents, shallow water and perhaps a proximity to land, by oblique laminae of deposit, ripple markings, and fucoidal remains. The upper portion of this rock contains no fossils, nor were the physical conditions such as to have preserved them even if they had existed.

5. There seem to be evidences of a gradual thinning out of the Primordial sandstone in its far western extension, as also of all the Palæozoic formations. According to Dr. Owen, the Protozoic sandstones in Minnesota are at least 500 to 600 feet in thickness, and in Iowa Professor Whitney estimates them at from 250 to 400 feet. In Tennessee Professor Safford finds several thousand feet of rocks, which he refers to this age; and in Texas, where they seem to be quite well exhibited and to yield a large number of fossils, Dr. Shumard gives them as only about 500 feet. In the Rocky Mountain district they are seldom more than 80 feet and never over 200 feet. Indeed, all the Primary fossiliferous rocks are but thinly represented there, while the lower Secondary formations begin gradually to increase in force until all along the eastern

slope we have an enormous development of the Upper Secondary and Tertiary, with an aggregate thickness of from 8,000 to 10,000 feet.

6. So far as we yet know, there is no unconformability in any of the fossiliferous sedimentary rocks of the Northwest from the Potsdam sandstone to the summits of the true Lignite Tertiary. There are proofs of two great periods of disturbance which had a marked influence upon the physical geography of the West. The one occurred prior to the deposition of the Potsdam sandstone, when the Azoic or granitic rocks were elevated into a more or less inclined position, and the other and most important period took place at the close of the accumulation of the great Lignite Tertiary deposits, when the great lines of fracture were produced and the massive nuclei of the mountain ranges were raised above the surrounding country.

7. What changes took place in the physical geography of the West during the long period which must have elapsed after the deposition of the Potsdam sandstone until the commencement of the Carboniferous age, we have very few data to determine. We are inclined to think that this portion of the West at least was elevated above the water level during the greater part of that period; the numerous indications of shallow water during the accumulation of the Potsdam sandstone and the almost entire absence of rocks of intermediate age over so large an area further strengthens that opinion. It is true that in the far Northwest we have proofs that the hiatus is partially filled, but in the South and Southwest the evidence is still more meager. Near the Humboldt Mountains, in Utah, Messrs. Meek and Engelmann have detected proofs of Devonian rocks, but they are not known to be largely developed, and on the western declivity of the El Paso Mountains Dr. G. Shumard found "well-marked strata of the inferior Silurian system corresponding in age to the Blue Limestone of Cincinnati and the Hudson River Group of the New York series."* But so far as our present knowledge extends, rocks of intermediate ages do not form a prominent feature in the geology of the West.

WASHINGTON, November, 1861.

SKETCH OF THE GEOLOGY OF THE COUNTRY ABOUT THE HEADWATERS OF THE MISSOURI AND YELLOWSTONE RIVERS

By Dr. F. V. HAYDEN.

[From the American Journal of Science and Arts, vol. xxxi, March, 1861.]

The observations made during the recent expedition to the headwaters of the Missouri and Yellowstone Rivers, under the command of Capt. William F. Reynolds, Topographical Engineers, have served to extend quite largely our knowledge of the geographical area of the different geological formations already indicated as existing in the far West. I propose in the following paper to present a brief abstract of the leading facts ascertained with a view to their bearing upon the physical geology of the mountain chains. I know that it will be impossible within the limits of a single paper to make every point as clear as could be desired, or to use terms in all cases in their usually restricted sense. Much of the country passed over, west of the Black Hills, had never before been explored by scientific men, no maps existed which exhibited its topography with any pretensions to accuracy, and the mountain ranges which were known to exist in that region from information given by traders and trappers were not always laid down in their true geographical localities or with their proper trend; and not until the forthcoming report of Captain Reynolds, now in course of preparation, appears can these deficiencies be supplied. Moreover, the wild and broken character of the surface of the country examined, uninhabited except by roving tribes of hostile Indians, precluded the possibility of perfect accuracy in all the minor details, and we can only hope that we have obtained a general idea of the principal geological features of the vast area explored. The rocks observed belong to the different geological periods in the following order:

I. Granite, stratified Azoic, and eruptive rocks.†

* Transactions of the Academy of Sciences, Saint Louis, vol. i, No. 2, page 288.

† By granite or granitoid I mean those unstratified crystalline rocks in the West which hold a lower position than any of the stratified deposits and for the most part possess a uniform character, forming the central portions of the larger mountains; by stratified Azoic, a series of non-fossiliferous stratified beds, apparently sedimentary between the granite and Potsdam sandstone, and by eruptive rocks, those which have been melted by volcanic heat and brought to the surface in a more or less fluid condition, at various periods.

- II. Potsdam sandstone (Silurian).
- III. Carboniferous rocks (including Permian?).
- IV. Red arenaceous deposits.
- V. Jurassic beds.
- VI. Cretaceous, with its divisions.
- VII. Tertiary deposits.

I.—GRANITE, STRATIFIED AZOIC, AND ERUPTIVE ROCKS.

Under the first division of my subject I will take up the mountain elevations as they appeared in their detached portions along our route. It is now well known that the term "Rocky Mountains" is quite general in its application, including a vast number of more or less important ranges of mountains, which, when examined in detail, seem to have been elevated with very little regularity and in many instances to be but slightly connected, but when viewed in the aggregate to present a trend nearly north-west and southeast. Before reaching the main range we find along the eastern slope many detached minor elevations showing the wide geographical area under which the elevating forces acted.

I allude in the first place to the Black Hills, the northern portion of which we examined on our route from Fort Pierre, on the Missouri, to the Yellowstone River. These hills form the most eastern outlier of the Rocky Mountains, and would seem to be an independent elevation were it not for a low anticlinal which extends across the plain country southward, connecting it with the Laramie Mountains. The central portion is composed of a coarse flesh-colored feldspathic granite, with a series of metamorphic slates and schists superimposed, and thence, upon each side of the axis of elevation, the various fossiliferous formations of this region follow in their order to the summits of the Cretaceous, the whole being more or less inclined against the granitic rocks. The distance across the granitoid nucleus is from 15 to 30 miles, and on each side of the crest or axis of elevation we find the corresponding portions of the fossiliferous beds from the Silurian to the summit of the Cretaceous. The evidence therefore is conclusive that all the unchanged sedimentary strata at a period of comparatively recent date extended continuously over the whole area occupied by the Black Hills. The eruptive rocks reveal themselves at various localities, as at Bear Peak, Inyankara Peak, &c. Bear Peak is a protrusion of very compact igneous rocks, almost isolated from the main range of the Black Hills, and Inyankara Peak is for the most part composed of pentagonal basaltic columns arranged in a vertical position. There is no evidence, however, that they were formed by any force independent of that which elevated the entire range of mountains.

The next range that we examined was the Big Horn, which is perhaps the most important detached outlier on the eastern side of the main crest of the continent. This seems to trend nearly northwest and southeast, extending into the valley of the Yellowstone. The nucleus of these mountains is also composed of red feldspathic granite, with a series of stratified Azoic rocks; and the unchanged sedimentary strata to the summit of the Cretaceous and including a portion of the Lignite Tertiary can be seen in regular sequence outward inclining at greater or less angles. From the observations of Dr. C. M. Hines, who acted as geologist to the exploring division under Lieutenant Maynadier, we know that the corresponding formations occur on the opposite side of the axis of elevation, and, as we remarked of the Black Hills, we may infer from this fact that the unchanged sedimentary beds once extended continuously over the whole area occupied by the Big Horn Mountains, in a nearly horizontal position, some time during the Tertiary period. As we pass along the northeastern base of the Big Horn Mountains southwestward, the ridges of upheaval seem to be presented *en echelon*, the range gradually making a flexure around to the westward. Toward the headwaters of Wind River this range, as it attaches itself to the main chain of the mountains, changes its lithological characters, no true ancient granitic rocks being seen, but instead, lofty peaks composed of eruptive rocks, presenting every variety of structure, from compact basalt to porous lava-like masses.

The Laramie Mountains, by which we mean the whole range from the Red Buttes to the Arkansas, were examined with some care from Red Buttes southward nearly to Pike's Peak. There is a remarkable similarity in the general geological features of all the mountains on the eastern slope. The more lofty elevations, as Long's and Pike's Peaks, with other ridges and peaks scarcely less lofty than those just mentioned, are composed of the same coarse feldspathic granite before alluded to, but the lower ridges are formed to a great extent of a ferruginous feldspathic granite which easily yields to atmospheric agencies, and the surface of the country is paved with crystals of feldspar in consequence of its decomposition. All along the base, and often extending up to the crest of the mountains, we see the outcropping edges of the fossiliferous rocks inclining at greater or less angles, and on crossing over into the Laramie Plains we find the corresponding strata leaning from the opposite side. The granitoid nucleus varies from 8 to 20 miles in width. No indications of true eruptive rocks were observed

in this range. The Medicine Bow and Sweet Water Mountains appear to be of the same character for the most part, but on the east side of the Sweet Water River the evidence of igneous action is shown on a large scale. The ancient volcanic material would seem to have been elevated to a great height in but a partially fluid condition and then to have gradually cooled, affecting to a greater or less extent the fossiliferous strata in contact.

Near the junction of the Popo Agie with Wind River we came in full view of the Wind River Mountains, which form the dividing crest of the continent, the streams on the one side flowing into the Atlantic and those on the other into the Pacific. This range is also composed to a large extent of red and gray feldspathic granite, with the fossiliferous rocks inclining high upon its sides. After passing the sources of Wind River the mountains appear to be composed entirely of eruptive rocks. Even the Three Tetons, which raise their summits 11,000 feet above the ocean level, are formed of very compact basaltic rock.* The Wasatch and Green River Ranges, where we observed them, have the same igneous origin, and the mountains all along the sources of the different branches of the Columbia exhibit these rocks in their full force. In Pierre's Hole, Jackson's Hole, and other valleys surrounded by upheaved ridges, these ancient volcanic rocks seem to have been poured out over the country and to have cooled in layers, giving to vast thicknesses of the rocks the appearance of stratified beds.

The mountains about the sources of the Missouri and Yellowstone Rivers are of eruptive origin, and in the valley of the Madison Fork of the Missouri are vertical walls of these ancient volcanic rocks 1,000 to 1,500 feet in height, exhibiting the appearance of regularly stratified deposits, dipping at a considerable angle. As we pass down the Madison we find some beds of feldspathic rocks and mica and clay slates beneath the eruptive layers, dipping at the same angle. After passing the divide below the three forks of the Missouri we see a number of partially detached ranges which appear to be of the same igneous character. In the Belt and Highwood Mountains, and indeed all along the eastern slope in this region, we find continual evidence of the outpouring of the fluid material in the form of surface beds, or in layers thrust between the fossiliferous strata. These igneous beds thin out rapidly as we recede from the point of effusion. A large number of these centers of protrusion may be seen along the slope of the mountains west of the Judith Range. The erupted material sometimes presents a vertical wall 300 feet high, then suddenly thins out and disappears. The Judith, Bear's Paw, and Little Rocky Mountains seemed to be composed for the most part of granite and other rocks, with igneous protrusions here and there. I have in a former paper expressed the opinion that the central portions of our mountain ranges are composed of feldspathic granite, and to a certain extent this is true in regard to the more eastern outliers, but more recent observations have convinced me that these rocks which I have defined by the term "eruptive" compose by far the greater portion of the mountain masses of the West.

II.—POTSDAM SANDSTONE (SILURIAN).

The discovery of this formation in its western extension has already been announced in a former paper.† It was first made known as occurring in the Black Hills and resting upon the upturned or nearly vertical edges of the schists, clay slates, and granitoid rocks, and the inference was drawn that the same rocks would be found forming an outcropping belt along the eastern slope of the Rocky Mountains. After leaving the Black Hills we next observed it along the margins of the Big Horn Range near the summit, holding the same relative position and exhibiting the same lithological characters. A few thin layers of fine calcareous sandstone were observed filled with fossils characteristic of this period. At the head of La Bonte Creek, in the Laramie Range, I noticed a bed resting discordantly upon Azoic slates, 50 to 100 feet in thickness, holding the same position and possessing the same lithological characters which it reveals at other localities. I could discover no fossils in it at this point, but I am confident that this bed represents the Potsdam sandstone. The same bed seems to occur all along the mountains from Laramie Peak to Cache la Poudre Creek, underlying the well-known Carboniferous strata, and resting upon the decomposing granitoid rocks which form the nucleus of the first ridge. This rock (the Potsdam) is more or less changed by heat from beneath, but I was able to trace it continuously from the source of the Chugwater Creek to the source of Cache la Poudre, a distance of over 100 miles. It was also seen along the eastern slope of the Wind River Mountains, but did not contain any organic remains.

The above facts show very clearly that in its western extension, the primordial zone of Barrande is represented only by a thin bed of sandstone never exceeding 150 feet in thickness, and that it is seen only in a very narrow outcropping belt near the margins of the mountain crests. The stratified Azoic rocks upon which it rests discordantly, so far as my observations have extended, never reach a very great thickness in the West.

*This is an error. The Tetons are composed mostly of gneissic granite. 1878.

†Am. Jour. Sci. and Arts, vol. xxvi, 276.

III.—CARBONIFEROUS ROCKS (INCLUDING PERMIAN?).

On both sides of the divide of the Rocky Mountains, so far as our explorations have extended, a series of calcareous, arenaceous, and arenaceous beds are seen, which we have referred to the Carboniferous epoch. They vary in thickness at different points. Without specifying localities it will be sufficient to remark that all along the margins of any of the mountain elevations in the far West, these rocks are seen in a more or less inclined position.

Sometimes they are not visible for a short distance (as between the Laramie and Platte Rivers, 20 or 30 miles), but it is plain that they have either been removed by erosion or concealed by more recent deposits. Along the Big Horn Mountains there are alternate layers of sandstone, arenaceous, and magnesian limestones, many of which show oblique laminae and other indications that their deposition took place in shallow and perhaps turbulent waters. They are here developed to a thickness of 1,000 to 1,500 feet, and incline high upon the sides of the mountains at an angle of 50° to 70° . They contain few fossils, but these indicate rocks of the same age as those in the Black Hills. Along the Laramie Mountains, from the Red Buttes to Pike's Peak, apparently the same limestones are seen inclining against the sides of the elevated ridges at greater or less angles, and on the opposite side of the axis, sloping down to the Laramie Plains, the corresponding strata are seen, though leaning at much smaller angles, usually from 9° to 15° . Along the Sweet Water and Wind River Mountains these rocks are highly developed and incline against the sides of the ridges of elevation, as heretofore described. The corresponding portions are also seen on the west slope of the main range at the sources of Green and Snake Rivers, but not as conspicuously developed, the eruptive rocks predominating. Crossing back over the dividing crest near the sources of the Madison, Jefferson, and Gallatin Forks of the Missouri, we find similar limestones largely developed and covering a considerable area on the eastern slope. Near the junction of the three forks and along Smith's or Kamas River we find them reaching a thickness of 800 to 1,000 feet, often partially changed by contact with igneous rocks beneath. They were also observed around the Judith Mountains, and also about the Bear's Paw and Little Rocky Mountains.

Nowhere in the Rocky Mountain Range, so far as my observations have extended, do the Carboniferous rocks seem to abound in organic remains, and the few usually seen are generally found in a bad state of preservation and comprise a limited number of species. The precise period to which these rocks belong which are so persistent in all disturbed regions is not positively known, the evidence from organic remains pointing to the age of the Coal Measures and sometimes to that of the Lower Carboniferous period; probably both members of the system occur there.

At the foot of the Big Horn Mountains, near the head of Powder River, I observed at one locality a series of beds which indicated the presence of Permian rocks. These beds, which are composed of cherty magnesian limestone, are very much like those already described in Northeastern Kansas, and contain in great abundance some of the same species of fossils as *Myalina perattenuata* and others. I have also seen similar limestones in other localities, but no fossils were detected, and though having a Permian appearance they may belong to the upper portion of the Carboniferous.

The evidence is clear in many localities that prior to the deposition of the Red Marls succeeding the supposed Permian a very great erosion of the surface of the Carboniferous rocks took place. We find, for example, in many localities only a thin representation of the Carboniferous rocks, and again a full development, 1,000 to 1,500 feet in thickness.

IV.—RED ARENACEOUS DEPOSITS.

Overlying the Carboniferous rocks, and equally persistent with them, is a series of red arenaceous marl beds or gypsum-bearing marls, which are coextensive with the upheaved sedimentary formations along the Rocky Mountains. The largest development of these beds which I have observed occurs on the northeastern side of the Big Horn Mountains and on the west slope of the Wind River Mountains, near the source of the Gros Ventres Fork of Snake River. From the Red Buttes, on the North Platte, to Pike's Peak these beds are often removed by erosion or concealed by superficial deposits, but their appearance in numerous places shows very clearly that beneath the surface they occupy a considerable area throughout the country bordering the mountain ranges, possibly extending entirely over the eastern slope. Passing over into the Laramie Plains we find that the red marls constitute the surface formation of the plain country. It has also been shown from Mr. H. Engelmann's explorations that these beds are revealed along the Wasatch Mountains, even south of Lake Utah, furnishing undoubted evidence that they belong to the same great deposit. The fact also that 1,000 to 1,500 feet of red arenaceous beds are seen near the sources of Green River, leads to the inference that they continue southward far down the Green River Valley to that portion which takes the name of Colorado, and are in fact a continuation of the extensive red deposits described by various explorers in New Mexico.

These red beds are also seen under similar circumstances highly developed along the mountains at the sources of the Missouri. There seems to be a change in the lithological characters below the Gate of the mountains, the peculiar red deposits disappearing for the most part, and a series of irregular layers of siliceous limestone with a reddish tinge, and with oblique laminæ, ripple-mark and other indications of shallow-water deposition. It is through these layers of rock that the Missouri River cuts its way from the foot of the mountains to the mouth of High Wood Creek, about 10 miles below the falls. They are also distinctly revealed around the Judith Mountains. Along the Big Horn Mountains thick layers of gypsum occur, but the gypsum beds are by no means coextensive with the red deposits, and indeed are present in but few localities. Near the head of Powder River the aggregate thickness of the gypsum strata is about 100 feet, while near the source of Snake River there is a thickness from 50 to 80 feet. It also occurs to a considerable extent at the foot of the mountains, on La Bonte Creek, a branch of the North Platte.

V.—JURASSIC ROCKS.

These rocks are everywhere revealed, overlying the red deposits just mentioned and possessing an equal geographical extension. Their fullest development and most fossiliferous condition seems to be along the margins of the Black Hills, where they have furnished the most satisfactory evidence of their age. Along the northeastern slope of the Big Horn Mountains this group of rocks presents its usual appearance of gray and whitish calcareous and arenaceous layers, with indurated, somewhat variegated beds of more or less laminated marls, containing in great abundance *Belemnites densus*, *Pentacrinus asteriscus*, a new species of *Ostrea*, *Pecten*, &c.

At Red Buttes we find a fair development of these beds with the same fossils, but as we proceed southward toward Long's Peak, the intercalated laminated marls disappear and the whole formation seems to be reduced to a thickness of 50 to 100 feet, with very few fossils. Along the southwest side of the Big Horn Mountains and the northeast side of the Wind River Mountains we have a thickness of Jurassic rocks from 800 to 1,000 feet containing organic remains in the greatest abundance. Crossing the Wind River Mountains we observed the strata corresponding to those upon the eastern side, with *B. densus*, *Ostrea*, &c. Returning to the eastern slope at the sources of the Missouri, we see occasional indications of their existence, but not so conspicuous as to be readily identified. The age of this group of rocks may be now considered as thoroughly established, so great a number of fossils which appear to be of undoubted Jurassic forms having been obtained.

I have remarked that the older fossiliferous beds doubtless pass beneath the more recent Cretaceous and Tertiary deposits, and occupy a greater or less area underneath the prairie country east of the "divide" of the Rocky Mountains. I have made this inference from the fact that where any elevations occur the complete series of fossiliferous beds are exposed around the axis of upheaval. That I may not be misunderstood by those geologists who have colored large areas Triassic and Jurassic on geological maps of the West, I would say that I have never seen any of the older fossiliferous rocks, from the Potsdam to the Jurassic, inclusive, exposed except in narrow outcropping belts around the margins of the mountain elevations. The Carboniferous rocks occupy a belt from one to two miles wide, and the red arenaceous deposits are exposed over about the same area, while the Jurassic form a zone never more than one-fourth of a mile to three miles in width.

VI.—CRETACEOUS ROCKS WITH SUBDIVISIONS.*

The various subdivisions of the Cretaceous Group in the West were observed at numerous localities. The strata in many places occupy large geographical areas, holding a horizontal position, in others forming a belt or zone of greater or less width around the mountain elevations. No. 1 is a well-marked and distinct division along the Missouri River from De Soto to a point above the mouth of the Big Sioux River in the eastern portions of Kansas and Nebraska and in the South and Southwest. But when we come into the vicinity of the mountain ranges in the Northwest its typical form is wanting, and apparently an increased development of No. 2 only is seen. Along the Big Horn Mountains, No. 2 is 800 to 1,000 feet in thickness, composed of black, plastic clay with several layers of gray and yellowish calcareous sandstones 10 to 50 feet in thickness. Along the Laramie and Wind River Mountains the same characters are shown. After leaving the Missouri, near the mouth of the Niobrara River, No. 3 is never seen presenting its typical marly character. In the vicinity of the Black Hills we saw a series of beds composed of alternate thin layers of arenaceous and argilla-

* The Cretaceous rocks of the West have been divided into five formations, numbered 1, 2, 3, &c. A more careful study of No. 1? may render it necessary to make other divisions.

aceous sediments with *Ostrea congesta* and *Inoceramus problematicus* which may possibly represent No. 3. Along the Big Horn Mountains and from Red Buttes to Cache la Poudre Creek the same fossils were often found and some other indications of its existence, but no well-marked typical beds were seen. It is now well known that *O. congesta* and *I. problematicus* range down into No. 2, so that No. 3 in the West and Southwest may give place to an increased development of No. 2. Nos. 4 and 5 are largely developed everywhere, when not concealed by the overlying Tertiary deposits, especially along the Laramie Mountains and in the valley of Cache la Poudre. In the valley of Wind River all the Cretaceous rocks down to No. 2 appear to have been removed by erosion prior to the deposition of the Tertiary beds, and the characteristic fossils of No. 2 are quite abundant. As we pass over the mountains, we have, inclining from the western slope, 600 to 800 feet of alternations of black plastic clays, arenaceous marls, and beds of sandstones and limestones, with a few seams of carbonaceous matter passing up into calcareous and arenaceous compact rocks. In some arenaceous limestones near the middle of the series, and extending upward, quite abundant fossils were observed, among them a large *Inoceramus*, two species of *Ostrea*, a large *Pinna*, four inches in length, a *Cardium*, and a number of undetermined species, with fragments of silicified wood. The general dip of these rocks is about 20°. These well-marked Cretaceous beds pass up quite imperceptibly into an enormous thickness of Lignite Tertiary. Passing over the dividing crest to the headwaters of the Missouri, we did not observe any indications of Cretaceous rocks until we had descended below the three forks, where we find traces left after erosion. They do not reveal themselves conspicuously until we arrive within twenty or thirty miles of Fort Benton, where the black, plastic clay begins to overlap the Jurassic rocks, with its characteristic fossils, and on reaching Fort Benton the plastic clay is quite homogeneous, and is developed to a thickness of 800 feet. As we proceed toward the mouth of the Judith River and near the Judith Mountains, we find quite thick beds of concretionary sandstone which form the "Stone Walls," "Citadel," &c. It is from these beds that we have obtained a group of fossils which we have referred provisionally to No. 1, but which seem to be specifically distinct from all others in the West. It may be that when this group of beds now referred to Nos. 1 and 2, comprising a thickness of 1,500 to 2,000 feet in this region, are more carefully studied, that several subdivisions will be made, having equal importance with the others. During the past season our route led us along the "divide" between the Missouri and Yellowstone rivers, south of the Judith Mountains, so that we passed outside of any good exposures of No. 1, as well as beyond the limits of the estuary beds at the mouth of the Judith. We must await a more thorough and detailed exploration of this region before we can state with entire confidence the succession of the beds.

VII.—TERTIARY DEPOSITS.

In speaking of the Tertiary deposits of the Northwest, so far as known at the present time, I propose to separate them into four divisions, which will be sufficient for our immediate purposes: 1st. Estuary deposits. 2d. True Lignite beds. 3d. Wind River Valley deposits. 4th. White River Tertiary deposits.

The estuary deposits, of which the Judith Basin may be regarded as the type, are quite remarkable and of a most interesting character. Opinions of a somewhat conflicting nature have been entertained in regard to them, owing to the peculiar character of the organic remains; but recent observations have convinced me that they are all of Tertiary age, and that they are quite widely distributed throughout the far West. The lithological characters of the Judith deposit have already been sufficiently described, and it has yielded many important fossils. A thin series of beds is also found near the sources of the Moreau, Grand, and Cannon Ball Rivers; and at the mouth of the Big Horn River we have a group of beds 800 to 1,000 feet in thickness, with fossils of the same character as those occurring at the mouth of the Judith. The researches of Mr. H. Engelmann, in Utah, have also established the existence of an estuary deposit in the country bordering upon Green River, scarcely less interesting than that of the Judith. These deposits pass up into the true lignite beds without any perceptible line of separation, gradually losing their estuary character and ever after containing only land and fresh-water shells. The lignite strata are chiefly remarkable for yielding in the greatest abundance finely preserved vegetable remains. A few fragments of leaves of Dicotyledonous trees and silicified wood, with very impure lignite beds, are formed in some of the estuary deposits, but no groups to indicate the great luxuriance of vegetation which must have existed during the accumulation of the lignite strata.

The geographical extension of the lignite deposits of the West is now a matter of the highest interest, and, from what is already known, I am convinced that they will yet be found to cover a greater or less area on both sides of the main "divide" of the Rocky Mountains, from the Arctic Sea to the Isthmus of Darien. The estuary and lignite beds seem also to have partaken equally with the older fossiliferous rocks of the influence which elevated the mountain chains. Along the Laramie Mountains and from

the Red Buttes to the "divide" between Platte and Wind Rivers, along the Big Horn Mountains, the strata incline at very high angles, 40° to 80° , and in some instances are very nearly vertical. The true lignite strata seem to conform to the older fossiliferous rocks and to have been disturbed by the same influences that elevated the mountain ranges in the vicinity. These Tertiary beds extended over all the plain country to the north, and east of the Laramie Mountains, far to the northward, beyond the limits of our explorations. Crossing the Wind River Mountains, we find them largely developed high upon the western slope, dipping at a high angle, from the Wind River Range on the one side and the Wasatch and Green River Mountains on the other.

Throughout the Wind River Valley is a series of beds, of great thickness, which seem to be intermediate in their character between the true lignite beds and the White River Tertiary deposits. We first observed them gently inclined near Willow Springs on the North Platte, and thence westward toward the Sweet Water Mountains and near the "divide" between the North Platte and Wind River they reach a thickness of 400 feet. From this "divide" throughout the Wind River Valley they occupy the greater portion of the country, and, though inclining in the same direction with the older strata, the beds do not dip more than 1° to 5° . They differ from the other deposits in the great predominance of arenaceous sediments and in the absence of vegetable remains, but they contain fragments of turtles and numerous fresh-water and land shells of the genera *Helix*, *Planorbis*, *Vivipara*, &c. The entire thickness of these deposits may be estimated at from 1,500 to 2,000 feet. From the fact that these deposits do not conform to the true lignite beds and that detached portions are seen lying upon the sides of the mountains but slightly inclined, while the corresponding beds are shown in the valley below, we infer that they were accumulated long before the mountains were raised to their present height, or perhaps during the gradual process of elevation. This is especially shown at the upper end of the Wind River Valley. Passing over the Wind River Mountains we again see them holding the same position on the western slope, and possessing the same lithological characters. While the lignite beds on the west side of the "divide" incline at a large angle, the more recent beds, although in some places occupying the very crest of the mountains, seldom incline more than 3° to 5° .

The most interesting additional facts which we have obtained in regard to the White River Tertiary beds, are their geographical extension and the evidence of their age in relation to the lignite deposits. We can now show beyond a doubt that the former must have been accumulated long since the latter. We have ascertained that they extend southward along the Laramie Mountains to Willow Springs within 10 miles of Cache la Poudre; that they also extend up the North Platte to the Box Elder Creek, and even beyond are small outliers, showing that much has been removed by erosion. Passing over into the Laramie Plains we find at the source of the Box Elder and extending over to the head of Bates Fork a large development of this Tertiary, and it also reaches far westward to the Medicine Bow Mountains. We also know from the observations of Dr. Hines that it occupies a considerable area among the Sweet Water Mountains, extending over into the Green River Valley. We have along the North Platte the overlapping of the White River beds upon the lignite strata, thus affording the evidence of superposition for their relative age. The same fact was noticed between the North Fork of the Cheyenne and the head of Cherry Creek, where beds of marl and limestone containing *Planorbis*, *Limnea*, &c., the same as are seen in the Bad Lands proper, repose upon true lignite Tertiary strata. Again, while the White River beds hold for the most part a horizontal position, those of the lignite Tertiary are often much disturbed. Near the Black Hills the former seem to have been elevated to a considerable height by the upheaval of the mountains, but they do not in any case incline more than 1° , while north of the Black Hills the lignite beds dip 5° to 10° . Along the Platte I have seen the former inclining 5° , especially on La Bonte Creek and about 15 miles east of the mouth of that creek. Often the beds seem to have been raised up several hundred feet above their original position, without inclination, resting upon the upturned edges of the lignite beds which we have before observed, partook equally of the disturbing influences which have given so great an inclination to the older fossiliferous rocks. Along the Big Horn Mountains and the North Platte the lignite beds sometimes incline from the foot of the mountains 80° , and often the influence of the elevatory power has affected them far out into the plain country.

In the above accounts of the Tertiary deposits of the West we have shown that the older members are clearly separated into four divisions exclusive of the Pliocene deposits of the Niobrara. Let us examine the evidence in regard to the age of these deposits. If we study the upper portions of Cretaceous formation No. 5 when not removed by the erosive power of water to any great extent, we then observe from the time we pass from No. 4 to No. 5 a gradual change in the sediments, and other indications of a slow approach to shallow water; arenaceous sediments begin to take the place of argillaceous, so that we have alternate thin layers of sand and clay, the sand continuing to increase until the upper part becomes a yellow ferruginous, coarse sand-

stone, with most conspicuous examples of ripple-mark and oblique laminae. As the waters of the Cretaceous sea were gradually receding, toward the Atlantic, on the one side, and toward the Pacific on the other, remnants were left in the form of lakes, estuaries, &c., which now afford us the last indications of marine and brackish water deposits in the central portions of the West. In these deposits we have first a mingling of brackish and fresh water forms, gradually passing up to pure fresh water and terrestrial species, with no return to the marine condition again.

In the upper part of the Cretaceous formation No. 5, on the Moréau, we find the *Ostrea subtrigonalis*, and in the Judith deposits a form occurs in the greatest abundance, which is undistinguishable from it.

We have also mentioned the fact that the fossils of upper part of No. 5 seem to have existed upon the verge of the Tertiary period, that they sometimes present peculiar forms more closely allied to Tertiary types than Cretaceous, and were it not for the presence of the genera *Baculites*, *Ammonites*, *Inoceramus*, &c., which are everywhere supposed to have become extinct at the close of the Cretaceous epoch, we would be in doubt whether to pronounce them Tertiary or Cretaceous. These facts would seem to indicate a foreshadowing of the Tertiary era, and that the transition from one great period to the other was gradual and quiet, the change in the physical conditions being ultimately sufficient to destroy the Cretaceous fauna, and bring into existence that of the Tertiary. Again, in numerous localities where No. 5 is fully developed and a large thickness of Tertiary deposits is superimposed, so that near some of the mountain elevations I have found it difficult to draw the line of separation, no apparent physical break occurring in the sediments.

Will not these statements go far to show that the estuary deposits ushered in the dawn of the Tertiary epoch and induce the belief that they belong to the first part or Eocene period? This point is an important one to establish, on account of its bearing upon the history of the physical development of our western continent.

The estuary deposits soon lose their marine and brackish character and gradually pass up into the true lignite strata, of purely fresh-water origin, thence by a slight discordancy into the Wind River Valley beds, which give evidence of an intermediate deposit between the true lignite and White River Tertiary beds. Then come the White River bone beds, which pass up into the Pliocene of the Niobrara by a slight physical break, and the latter are lost in the Yellow Marl or Loess deposits. I have estimated the entire thickness of Tertiary rocks in the Northwest at from 5,000 to 6,000 feet, and their interest will be appreciated when I venture to suggest that by thorough investigation they will doubtless reveal in a most remarkably clear manner the history of the physical growth and development, step by step, of the central portion of this continent. I shall treat this subject more fully in a future paper, and would refer to the forthcoming report of Captain Reynolds for the details of the facts sustaining my opinions.

We have no evidence, so far as I know, of long continued deep-water deposits in the West, until far up in the Cretaceous period. If we examine the Potsdam sandstone we shall find that where it reaches its greatest force the lower portion is composed of an aggregation of quartz pebbles cemented with siliceous matter, and as we pass upward, we find it arranged in thin layers quite compact with fucoidal markings, ripple-mark, &c. Everywhere are most abundant examples of oblique laminae of deposition and ripple and wave markings—evidences of shallow waters.

During the long period that elapsed between the deposition of the earliest part of the Silurian epoch and the commencement of the Carboniferous we have reason to believe that dry land prevailed over a large portion of the West. The Carboniferous epoch commences with thin layers of arenaceous deposits, gradually passing up into homogeneous siliceous and calcareous beds. The latter are never more than from 20 to 50 feet in thickness, and then the arenaceous sediments begin again to predominate, and all the proofs of shallow as well as turbulent waters are shown. We then pass up through the red arenaceous deposits and Jurassic beds, and find no rocks that indicate deep water deposition. Cretaceous formation No. 1 commences in many places with a considerable thickness of an aggregation of water-worn pebbles passing up into thin alternate layers of arenaceous and argillaceous sediments with thick beds of sandstone with ripple markings and oblique laminae, then gradually ceases in No. 2, and through Nos. 2, 3, and 4, the sediments indicate that they were accumulated in comparatively deep and quiet waters. No. 2 is a black plastic clay, No. 3, gray marl, and No. 4, a dark indurated, sometimes laminated, clay, with many calcareous concretions. In No. 5 we gradually approach indications of shallow water until dry land appears, as already stated.

It will not be possible at this time to mention in detail all the oscillations of surface and other physical changes to which we have reason for supposing the country was subjected during all these periods. It is sufficient for our present purpose to show that, except during the Middle Cretaceous epoch, no long-continued periods of quiet water prevailed in these ancient western seas.

The evidence appears to me to point to the conclusion that a much milder climate prevailed throughout the western portions of our continent, during a greater part of

the Tertiary period, than that which exists in the same latitudes at the present time. The organic remains appear to indicate a subtropical climate, or one similar to that of our Gulf States. Near the close of the Cretaceous epoch the waters of the great Cretaceous sea receded toward the present position of the Atlantic on the one side, and toward that of the Pacific on the other, leaving large areas in the central portions of the West, dry land. These areas were of course in close proximity to the sea, and comparatively but slightly elevated above the ocean waters. In regard to the mollusca which have been found quite abundantly entombed in the lignite-bearing strata, it is an interesting fact that the most nearly allied living representatives of many of these species are now found inhabiting the streams of Southern Africa, Asia, China, and Siam, apparently indicating the existence of a tropical climate in these latitudes at as late a period as the Tertiary epoch.*

Again, the luxuriance of the flora which has been so perfectly preserved in the lignite strata of the West point to the same conclusion. It is true that until recently no species have been found which belong exclusively to a tropical vegetation, but during our last expedition we obtained a species of true fan-palm, very closely allied to *Sabal lamonis*, figured by Dr. Heer in his "Flora Tertiaria Helvetiæ." "The most northern limit of palms is that of *Chamærops palmetto*, in North America, in latitude 34° – 36° , and of *Chamærops humilis* in Europe, near Nice, in 43° – 44° N. latitude."† The true palms of our present day are considered as having their native land within the tropics. That this or a similar condition of climate continued throughout the accumulation of the Wind River Valley deposits may be inferred from their molluscan remains, which are more nearly allied to tropical forms.

Again, we have in this region, as before mentioned, an extensive area occupied by the lignite-bearing strata. There are from 30 to 50 beds of lignite, varying in thickness from 1 inch to 7 feet. Over all this great area there are at the present time no large forests, no timber except that which skirts the streams. We now know that during the Tertiary period vast forests of timber must have covered many portions of the far West from the abundance and variety of the vegetable remains preserved in the rocks. Silicified trunks of trees, 50 to 100 feet in length and 2 to 4 feet in diameter, and stumps which indicate gigantic forest trees occur abundantly over hundreds of square miles along the Missouri and Yellowstone Rivers. Professor Henry and other meteorologists have arrived at the conclusion, from a vast number of well-authenticated facts, that the absence of forest trees on the great prairies of the far West is due to the want of moisture, which is well known to prevail all along the eastern slope of the Rocky Mountains. The prevailing winds are now known to come from the west and northwest, and, as the currents of air laden with moisture from the Pacific ascend the western slope of the mountains, become condensed and deposit their burdens for the most part before reaching the eastern slope.

Professor Henry, in his paper on Climatology, contributed to the Patent Office Report for 1856, says: "The return westerly current, sweeping over the Pacific Ocean, and consequently charged with moisture, will impinge on the Coast Range of mountains of Oregon and California, and, in ascending its slopes, deposit moisture on the western declivity, giving fertility and a healthful climate to a narrow strip of country bordering on the ocean, and sterility to the eastern slope. All the moisture, however, will not be deposited in the passage over the first range, but a portion will be precipitated on the western side of the next, until it reaches the eastern elevated ridge of the Rocky Mountain system, when, we think, it will be nearly, if not quite, exhausted." We are now supposing that the climatic conditions—winds, currents of air, &c., did not differ to any great extent during the Tertiary epoch from those which prevail in the same latitudes at the present day. We therefore venture the suggestion that up to the time of the accumulation of the Middle Tertiary deposits the lofty barrier of the Rocky Mountains did not exist.

WASHINGTON, D. C., January 20, 1861.

* See Memoir by F. B. Meek and F. V. Hayden in Proc. Phila. Acad., June, 1856.

† Lindley's Vegetable Kingdom, p. 136.

The history of the United States is a story of growth and change. It begins with the first settlers who came to the Americas in search of a new life. These early pioneers faced many hardships, but they persevered and built a new society. Over time, the United States grew from a small colony into a powerful nation. It fought wars, both with and without, and emerged as a global leader. The story of the United States is one of resilience and innovation, of a people who have overcome many challenges and built a great nation.

The early years of the United States were marked by struggle and uncertainty. The new nation was small and weak, with a fragile economy and a limited military. It faced many external threats, both from European powers and from Native American tribes. Despite these challenges, the United States managed to survive and grow. It developed a strong sense of national identity and a commitment to democratic principles. These values became the foundation of the nation's future success.

As the United States grew, it became more and more involved in world affairs. It fought the Revolutionary War, the War of 1812, and the Civil War. Each of these wars shaped the nation in important ways. The Revolutionary War established the United States as an independent nation. The War of 1812 solidified its status as a major power. The Civil War preserved the Union and ended slavery, two of the most important achievements in the nation's history.

The United States has continued to grow and change ever since. It has become a global superpower, with a strong economy and a powerful military. It has led the world in many important areas, including science, technology, and culture. The story of the United States is still being written, and it is up to us to decide what the future of this great nation will be.

REPORT

ON THE

YELLOWSTONE NATIONAL PARK.

NORRIS, MICH., *December 10, 1878.*

SIR : I have the honor to submit the following report of my operations in the field during the season of 1878 :

As soon as the appropriation for the Yellowstone National Park became available, I proceeded via Omaha and Ogden direct to Bozeman, Mont.

From Detroit, Mich., Mr. B. F. Bush, an early and enthusiastic member of the scientific association of that city, accompanied me as assistant at a mere nominal salary, purposing to remain in the park during the winter to keep a regular weather record, and explore and sketch its main wonders, at present but little known at that season of the year. In public meetings at both Virginia City and Bozeman I fully explained the boundaries, wonders, and necessities of the park ; your rules and regulations and my plans for its protection and improvement ; and was by the speakers, the resolutions, and press reports thereof sustained by unanimous pledges of earnest sympathy and support.

At Bozeman I rapidly outfitted for the park and reached it, 70 miles distant, in time to take observations of the *there* total eclipse of the sun, July 29, from a lofty, unexplored basaltic pinnacle of Sepulcher Mountain, as did Messrs. Bush and Bottler from the Cinnabar.

As stated in my preliminary report, the increasing probability that the hostile Bannocks would, like the Nez Percés of last year, raid the park from the west, induced me to defer the purposed erection of buildings at the Mammoth Hot Springs and seek to construct a road thence, connecting the entrance from Fort Ellis with that from Henry's Lake at the Lower Firehole Basin, for military as well as other purposes. A prudent regard for the safety of our limited appropriation also induced me to send back our official and other valuables to Bottlers', and to purchase but few animals, mainly hiring them with their owners at only trifling additional expense and no risk of loss.

I thus quickly organized a party of some 20 well armed, mounted, and equipped, resolute and reliable mountaineer laborers, and, with only one baggage-wagon, rapidly constructed a road three miles up the lofty Mammoth Hot Springs terraces, and through an excellent pass to the West Gardiner Valley.

From the summit of Sepulcher Mountain I had upon the day of the eclipse, with a field-glass, traced my route of 1875, along connecting branches of the Gardiner and the Gibbon, through a cañon nearly parallel with the Snowy Madison range. More easterly and nearly due south from my point of observation stretched the long, open, grassy valley of an unexplored branch of the Gardiner issuing from a deep cañon toward the towering cliffs of the Grand Cañon of the Gibbon, and far

away over and beyond the Firehole Basins and continental divide, the serried glistening crest of the Three Tetons high above the clouds.

Subsequent careful and long continued explorations of this route proved it, although difficult and dangerous of construction through several cañons and firehole basins, the most direct and practical one for a wagon road across the park.

As Barronette's party had left and Professor Hayden's not reached the park, we were doubtless for a time the only white men within or near it, requiring constant caution in scouting and labor, as well as in care of animals and making and guarding camp. Despite these annoyances, we crossed the terraces, rapidly bridged the first branch of the Gardiner, forded the next two branches, and ascended the last through a two-mile cañon, and, with nearly a half mile of bridge and causeway, crossed the foot of Beaver Lake.

Obsidian there rises like basalt in vertical columns many hundreds of feet high, and countless huge masses had fallen from this utterly impassable mountain into the hissing hot-spring margin of an equally impassable lake, without either Indian or game trail over the glistening fragments of nature's glass, sure to severely lacerate. As this glass barricade sloped from some 200 or 300 feet high against the cliff at an angle of some 45° to the lake, we—with the slivered fragments of timber thrown from the heights—with huge fires, heated and expanded, and then, men well screened by blankets held by others, by dashing cold water, suddenly cooled and fractured the large masses. Then with huge levers, steel bars, sledge, pick, and shovels, and severe laceration of at least the hands and faces of every member of the party, we rolled, slid, crushed, and shoveled one-fourth of a mile of good wagon-road midway along the slope; it being, so far as I am aware, the only road of native glass upon the continent.

Then, by a full mile of grade, we flanked Beaver Lake, skirted a dashing rivulet of green alum-water, through a fine pass, and beside a lone lake in a forest of dense pines to the lovely valley of an unknown fork of the Gibbon, descended this to, and three miles through, an unexplored but extremely active and interesting firehole region, and skirting another near the second falls and cañon to the wild-flax and clover-covered park-bed of an ancient lake, to the head of the Grand Cañon of the Gibbon.

Thence, without the guide of even a game-trail, by immense labor, and twice crossing the stream, we for some four miles traversed its cañon, nearly a half mile deep. We then emerged through an ancient channel, and skirted the very brink of a precipice nearly a thousand feet above the 80-foot falls and foaming rapids, and six miles of open pine-clad terraces to Howard's road from Henry's Lake, an estimated distance of 45 miles from the Mammoth Hot Springs, mainly through a region heretofore totally unexplored; then 15 miles farther through the Lower Firehole and midway to the upper geysers, our wagon being the first to make a track along the Upper Firehole River.

We joyfully met the Gannett and Holmes party of Professor Hayden's geological surveying expedition at the lower geysers—the professor himself at the upper, and between them the various members of his Wilson party straggling in afoot and exhausted after loss of their animals and other outfit by the Indians near Henry's Lake.

It was truly a pleasant and fortunate meeting for all parties, after more than a month of hazardous mountain climbing and isolation from the outside world and each other; and amid abundant evidence of surrounding Indians, we for days pressed our various duties within supporting distance of each other.

A courier from General Brisbin warning me that the hostile Bannocks were pressing through Tyghee's pass, and advising concentration for defense, until relieved by himself or General Miles, delayed us, still laboring upon the roads, at the forks of the Fireholes, until getting short of provisions, when we retraced our route to the Mammoth Springs, there finding General Brisbin with a Gatling battery and all the troops available, and that the main band of hostiles had meanwhile crossed our road between us. I there also found that the Bozeman Bank containing my government deposit was closed, requiring the assistance of my Bottler friends to continue the work.

Although the funds were ultimately replaced in Helena without loss to myself or the government, and General Miles met and in a sharp conflict nearly exterminated the Bannocks, yet these circumstances wholly unavoidable and not likely to again occur, were, in the midst of a short season's operations, peculiarly annoying and retarding.

During a tour of the park with General Miles, and in reviewing the old trail-routes and exploring new ones, I was enabled to keep a small party actively engaged in improving my road to the geysers, that towards Fort Ellis, and a new one to the forks of the Gardiner on the route to the falls and lake, and several additional bridle-paths and bridges.

Also, in view of the remote, if not immediate, possibility that the scaling off of heavy masses of rock from the famous extinct geyser-cone called Liberty Cap might destroy its equilibrium, causing its fall and lamentable destruction, I erected rough but firm braces of timber under a shoulder of the endangered side.

After the commencement of autumn storms rendered the employment of a large party of laborers unprofitable, I, with one or two reliable scouts, continued the exploration of mountain passes and routes for roads and bridle-paths, learning much of exceeding value in future operations. Lastly, through October snow-storms, explored the crags and cañons along the head of the West Gallatin in the northwestern corner of Wyoming, to learn if its boundaries may there be adopted as those of the park, as is for many reasons desirable.

Having thus fortunately closed the very arduous field duties of the season, and, without the loss of a man or an animal, safely left the government property at Bottlers', I crossed the range to Bozeman. Leaving there October 14, I, without special incident or delay, returned via coach, Utah Northern and Union Pacific Railroads.

My assistant, Mr. Bush, kept a regular record of weather observations, and other notes of interest, and greatly assisted in obtaining a large and interesting collection of fossil wood, chalcedony, obsidian, &c. But unfortunately the unexpected hardships of our camp-life and season's duties so impaired his health as to compel his return down the Yellowstone, but so late as to endanger being frozen in; and, leaving the Mackinaw at Fort Keogh, he took a mule-train to Bismarck and has but recently returned.

EXPLORATIONS.

While my explorations of the route connecting the wagon-road entrances to the park, and that between the Grand Cañon and Mount Washburn are doubtless the most important of the season, still I deem many others of considerable interest and value.

Beaver Lake, at least a half mile wide, of considerable depth, and in summer alive with geese, swans, and other water-fowl, is mainly if not wholly artificial. It is evidently formed by a succession of beaver-dams meandering in nearly every graceful curve, each with a fall of from 2 to

6 or 8 feet, probably aggregating some 30 or 40 in less than 2 miles; with a bare flat, like an estuary of the sea, where the dark green alum-water of a hissing firehole basin enters it.

An impure obsidian, black, with white flecks and cavities, is common in the park, notably at the Great Falls; but chips, flakes, arrowheads, and other Indian tools and weapons have been found by all recent tourists and explorers, in burial cairns, and also scattered broadcast in all those mountain valleys, of a different and much superior kind of obsidian, and from a source unknown until my discovery of it this season. I had seen the cañon from Sepulcher Mountain some 20 miles distant, and specimens of obsidian increasing in number, size, and beauty as I neared it, only in wonder and admiration there to find the eastern palisade—for two miles in distance and many hundred feet in height, literally towering vertical pillars of glistening black, yellow, and mottled or banded obsidian basaltic columns in form, but volcanic glass in fact—ever for the aborigines a vast weapon and implement quarry, of obsidian of a quality unequalled, and a quantity elsewhere unknown.

The pine and crystal-spring bordered, wild-flax and clover-clad glades of the Norris Fork of the Gibbon, in beauty and value for the tourist are unsurpassed by any in the park; and the open grassy park, 5 or 6 miles in circumference, between the upper and lower falls and cañons of the Gibbon, dotted and begirt by huge boiling springs, sputtering paint-pots, and spouting geysers, many of them timber-hidden, high up the encircling mountains, for beauty and for grazing I deem invaluable.

Upon the crest of the western mountain spur, rising nearly vertical full 1,000 feet above the head of the Grand Cañon of the Gibbon, is a firehole basin, containing, probably, less than 5 acres, yet one of the most beautiful and interesting within the park. There, mingled with hot springs and spouting geysers, are 12 pulsating geyser cones from 2 to 20 or 30 feet in height, in form and character similar to the famous Liberty Cap; and, like that, fully one-half of them are extinct and slowly eroding away. Others are still active; one of them a tall fumerole, pulsating like the exhaust-pipe from a huge Corliss engine, and another has the orifice and terminal of its cone positively horizontal, instead of vertical. Although there are still at least one powerful geyser and a hissing fumerole plainly audible for miles, yet there is abundant evidence that this basin is in all respects but a dwindled remnant of what it was at no remote period, when its matchless geyser supplied four separate and distinct torrents of hot water in hissing cascades adown the mountain crags. As discoverer, and probably yet sole white visitor, I from its group of white geyser cones name it the Monument Basin, and I trust none will ever question the appropriateness of Beaver Lake, Obsidian Mountain, and other names given to localities which I have discovered and explored.

Along and near the upper cañon of the Gibbon, are pulsating geyser cones of both yellow and crimson, paint-springs, and rivulets of nearly every color, geysers throwing their jets some at least 100 feet at an angle of 40° to 60° , instead of vertically as in the old basins; and in the open basin along the road, beside many small but beautiful geysers, is a large crater formed so recently that many pine trees within and around it still retain their seared and mud-laden leaves.

Mount Washburn is alike the great landmark, observatory, and unavoidable obstacle upon the route from the forks of the Yellowstone to its falls and lake; and a route less elevated, bleak, and snowy than that now used over the western spur, is exceedingly desirable. Fully aware of this, I have for years sought for record of tourist or explorer, or legend of mountaineer, claiming to have ever passed between Mount

Washburn and the Grand Cañon, but utterly failed, and my injury at Tower Falls checked my personal efforts of last year. Nor did I find an opportunity this season until September 26, when with Adam Miller and R. B. Rowland, the two most experienced mountaineers of those regions, and five good horses, I started to explore it. From the falls of Tower Creek I explored its cañon and the cañon and valley of Antelope Creek above it, the timbered plateau between them, and also that between the latter and the Grand Cañon. I found the latter very elevated, but open, smooth, and grassy, with a fine lake upon its summit, mainly an excellent route, with magnificent scenery along the yawning, sulphur-scented and stained cañon, for some 6 or 8 miles, and past the ruins of an ancient, once loopholed, earth-roofed block-house some 16 by 20 feet in diameter and of unknown origin, to a dense forest at the foot of a bald rocky spur of Mount Washburn.

Its tangled timber border, rocky sides, and sharp, serried crest, as seen from Mount Washburn above and the valley below, and its estimated fully 2,000 feet of vertical faces where cut by the Grand Cañon as seen across it, with others similar nearer the falls, had ever been deemed impassable.

A careful exploration of the first one from its towering front in nearly a foot of newly fallen snow, through a belt of dense pine, fir, and cedars to near the main mountain, resulted in there finding a pass excellent for a bridle-path, and practicable for a wagon-road, at a much lower altitude than the old route.

From a rocky, snow-girt peak in this pass I saw others still better in the remaining timber-fringed mountain spurs, and became well assured of success. I camped in a dense clump of pines and balsams in a sheltered grassy glade amid the snow, and like Fremont on an island in the Great Salt Lake, or Stevenson and Elliot upon one in the Yellowstone beyond the reach or fear of Indians, enjoyed the sweet repose of the weary, successful and contented.

With increasing premonitions of a gathering mountain storm, my plans were formed and camp in motion with the early dawn. Hastily recording our visit upon one of the trees of our canopy, I sent my men with the animals to seek a route through the remaining spurs and timber to the cascade and Great Falls, instructing them to await there a day before searching for me, should I fail to arrive. Then with rifle and hatchet, afoot, and alone, I descended a side cañon through all its labyrinth of windings, tangled timber, and crumbling walls, to the pent-up, roaring Yellowstone in the nearly hidden recesses of the Grand Cañon. Nearly fronting me was the mouth of a yawning side cañon soon hidden in its windings, somewhat above a side cascade nearly lost in spray in its fully 1,000 feet descent, and about and above me the stifling sulphur fumes of hissing fireholes, alike a serious obstacle to my purposed exploration of the cañon to the falls, and a warning to leave it without delay. Through great exertion, I breathless and exhausted reached the timbered plateau, and through fast-descending, large, downy snow-flakes ascended to the Great Falls, the thunders of which for miles came in rumbling echoes from the fearful depths. I there, in the gathering twilight, thankfully enjoyed the greeting shout and blazing camp-fire of my men, just safely arrived with the welcome intelligence that they had found a route in all respects preferable to that over the mountain to Cascade Creek.

The day had been without wind, and for a snowy one remarkably light, and the snow, which was more than a foot deep before night, really a benefit, plainly disclosing the various hot springs and sulphur basins, as

well as the clear-cut edge of the Grand and side cañons, and brink of the large yawning land-slides.

As the Grand Cañon is doubtless mainly one of erosion, like that of the Niagara, with a stream much smaller and gorge several times as deep, the hot springs have, by undermining the shelly walls, caused several of these slides of incredible dimensions. One of them extends at least a mile back from the river, a fourth of a mile along it, and fully as deep, with a grove of timber still flourishing upon the portion not yet removed by the river, which, as well as a roaring rapid, and, I think, a fall or cascade, are hidden by it. Two or three other smaller but similar ones, with their short, cañoned rivulets, by deeply indenting and lengthening the edge of the cañon, are the main obstacles to a road along its plateau brink. For though the pine, spruce, and fir timber is mainly very dense, yet it is small, only averaging a proper size for railroad cross-ties, easily removed from a road-track, and useful for its small bridges; and as I did not for many miles see a trail, hatchet-hack, or other trace of a human being, I have no doubt of my being the first explorer of the entire brink of the Grand Cañon of the Yellowstone, itself still mainly untrodden.

As before stated, portions of any possible route upon either side of the Grand Cañon between the forks and the falls of the Yellowstone will be elevated and expensive, especially for a wagon-road. That upon the eastern side of the cañon is utterly impracticable; that within it, unknown, but doubtless mainly so, while of the two remaining, that I explored is the shortest, least elevated, and easiest of construction, in fact, in all respects so preferable that I have no question of its adoption for all purposes other than a lofty, bridle-path lookout, for which purpose a portion of the old route, a branch from the new one over Mount Washburn, or both, will ever be desirable. Not only was the route thus found less rugged and difficult than feared, but also the Grand Cañon was shorter, and especially its lower portion less deep and yawning than has been considered. Still it is, especially from its yellow and crimson geysers to the falls, beautiful and grand beyond conception, a leading wonder of the park and of the world, every way worthy of a route along or as near as possible to its misty and sulphur-tinted walls.

From the falls I ascended the Yellowstone to its lake, but was prevented by deep snows and by Indians from a projected trip around it. Leaving it at Steamboat Point, I traced a trail route, via Pelican Creek and Amethyst Mountain, to the forks of the Yellowstone, a new route across the main river, and thence through the cañon of the East Gardiner to the Mammoth Springs.

During these various explorations of routes for roads and bridle-paths, various paint pools, fossil forests, and other places of interest were discovered. But as most of them were subsequently visited by some members of Professor Hayden's geological survey, in connection with their own numerous and valuable discoveries and explorations, I leave further description in more appropriate hands.

SUMMARY.

So well are its attractions understood, and so popular is the park in all those regions, that I have been cordially sustained by the civil and military officers, and the leading citizens, in my efforts for its protection and improvement. Still, to properly restrain the lawless citizen or tourist from wanton slaughter of animals, and other acts of vandalism, I deem additional legislation of various kinds indispensable.

That the special rules and regulations, necessarily anomalous and conflicting with the roving-hunter habits of the surrounding mountaineers, cannot be effectively enforced without the limits of their operations (the boundaries of the park) being established and plainly marked, is too evident for controversy. Equally so is the necessity for a thorough knowledge by all parties as to what civil and military officers of those regions are empowered and obligated to assist the superintendent in the prompt enforcement of these rules and regulations in every portion of the park. Nor should leases for any purpose be granted, or permanent occupancy or improvement by any parties be allowed, except in conformity with these necessary rules and regulations, quietly, affably, but uniformly enforced.

Complications arising with several parties claiming to have made improvements within the park prior to its dedication as such, render their adjustment so desirable that I urge their consideration at the earliest practicable moment. As at least the mining portions of these complications are probably without the boundaries of Wyoming Territory, which, as this season's exploration clearly proves, embraces all the wonders desired within the park, I earnestly recommend changing its northern and western boundaries to conform to those of Wyoming and the speedy completion of their survey. This is for many obvious reasons very desirable, among which is, that running *one* east and west line will fix the borders of the Territories of Montana and Wyoming, and also those of the park and the Crow Indian reservation, thus alike avoiding present expense and future complications from the exceedingly diverse judicial and other modes of managing contiguous regions.

As the park adjoins the settled portions of Montana, while wholly isolated from those of Wyoming, I suggest the propriety of its being at least temporarily attached to Montana for judicial purposes.

The few Sheepeaters, Bannocks, or Shoshones who alone once resided within the park, now belong at their agencies with other annuity Indians. Hence, no Indians now visit the park save as a haunt for purposes of plunder, or of concealment after bloody raids upon the ranchmen, pilgrims, or tourists. Therefore, I urge the necessity of the agency Indians of all the surrounding tribes being officially notified that they can only visit the park at the peril of a conflict with each other and the civil and military officers of the government; and a rigid accountability for plunder of all kinds taken into any of these agencies. This, with a small military post, or at least a summer camp, at the Yellowstone or Henry's Lake, or the Forks of the Fireholes between them, would prove alike valuable in protection of the park and the adjacent valleys; and being warmly recommended by both the civil and military officers of those regions will, it is hoped, secure it and the future safety of the park, and its routes of access. These are rapidly approaching by railroad, steamboat, and coach route up the Yellowstone via the gate of the mountains or Bozeman to the Mammoth Hot Springs, and also by the Utah Northern Railroad, now completed from Ogden to near the Snake River, with fair promise of reaching Market Lake and a coach route of some 150 miles via Henry's Fork and Lake, to the Forks of the Firehole within the park. Such prospective coach connection with the park renders more urgent the necessity of at least a wagon-road through it, not only along the direct route which I explored and roughly opened this season, but also the much longer, rougher, and more costly route unavoidable (as along the old trail), to view the great Yellowstone Lake, Falls, and Cañon, and for the completion of the circuit of the park, and view of its greatest wonders.

This season's explorations and careful observations of the bison, elk, bighorn, and other animals within the park, and also of those originally taken from there and now roaming peacefully with our domestic animals in the Bottler Park, the expressed views of their owners and also other mountaineers the best acquainted with the haunts and habits of those still wild—information every way practical and valuable—fully justify my last year's recommendations for their protection and domestication.

I thus still adhere to the views then expressed, that the delta-shaped portion of the park bounded on the west by the Yellowstone Lake, River, and Cañon, the Snowy Range upon the east, and north by the deep-sheltered grassy East Fork Valley, where the most of these animals now are, and where the residue would soon concentrate if there especially protected, is the place, and now is the time, to preserve living specimens of the dwindling remnants of our most beautiful, interesting, and valuable native animals and birds. Hence I again urge the necessity of making leases to responsible parties (some of whom are now ready if protected from Indians) as sub-agents of the government to protect and gradually domesticate a portion of these elsewhere nearly extinct animals, with no other cost to the nation than the exclusive right within certain prescribed districts of raising hardy vegetables and domestic animals for themselves, which are also necessary for the use of future tourists in the wonder-land.

There is an abundance of excellent grass, wood, and water at the Mammoth Hot Springs; and of the several excellent building-sites the accessible oblong grassy butte, commanding a view of the matchless terraces, the cañon of the main Gardiner River and its branches, should doubtless be selected for the headquarters of the superintendent of the park, or for a much needed commodious hotel, baths, and other out-buildings. There are several good building-sites, plenty of wood, fair water; and excellent water easily obtainable near the castle and Old Faithful; but a scarcity of pasturage in the upper basin. Building-sites, water, and pasturage are very inferior at the lower geysers; but upon a terrace of the lofty lookout butte, just above the forks of the Firehole Rivers is a site easily approachable from, and commanding a fine view of, the open valleys of both the forks, and the Madison River below their junction, with their boundless pasturage, countless geysers, and other hot springs, including the Lower Geyser Basin some two miles south and directly fronting it. Wood and water are here abundant, the former excellent, the latter very inferior; nor can this only drawback upon an otherwise peculiarly favorable strategic location be remedied except by conveyance of water in pump-logs or otherwise from a distance of several miles. There are several charming sites for a hotel and yacht or steamboat landing near the foot of Yellowstone Lake, and a lofty site with nearly every natural convenience and few disadvantages, commanding a full view of nearly all the concentrations of wonders at the Great Falls.

There are several excellent sites, and necessity for occupancy of at least one of them, among the geysers which I explored this season; a matchless one for grazing and for domestication of the bison, elk, and other wild animals, near the famous Soda Butte; also a route for approach and crossing of the main Yellowstone near the forks, far preferable to that of the Barronette Bridge, now so decayed and burned as to be very dangerous; or to the abutments of the miners' bridge commenced above it.

At any or all of these localities the bison can be at least as easily and reliably reared as domestic cattle, with its flesh fully equal and its nearly

black curly robes far more valuable than those of the buffalo of the plains, and with the excellent and abundant timber material, inclosures can be cheaply made for preservation of a few specimens of the elk, antelope, and other animals of great interest to future tourists.

With another season's improvement and construction of roads and bridle-paths, the promised routes of access, and protection from Indians, I have all confidence of being able to effect leases to responsible parties for the construction of much-needed hotels, and also for a yacht or small steamer upon the mystic Yellowstone Lake.

A plain but comfortable residence with the necessary outbuildings for the use of the superintendent of the park and the safety of the papers and other national property at one of the main entrances to the park, is so obviously necessary, that their construction has only been deferred because of the Indian raids now hopefully terminated.

With this view I am having lumber and other material prepared for construction of these buildings early next season, mainly with the unexpended balance of the appropriation for the present fiscal year.

HISTORY OF THE PARK.

Believing that, aside from purely scientific questions already in more appropriate hands, a brief statement of the location, dedication, and leading features of the Yellowstone National Park, and a reference to its prominent explorers and route of access, will prove of present and permanent interest and value, I devote a few pages of this report for these purposes.

As it will require months to compile Professor Hayden's extensive explorations and surveys of the past season and to issue a doubtless correct and valuable map of the park, I insert a small and tolerably accurate one for present use. There can be no doubt that the modern sulphur basins, mud-salses, hissing fumeroles, and spouting geysers are only dwindling remnants of the ancient volcanoes and vast and long-continued eruptions of lava, which in the region of the National Park characterized the elevation of the great plains and Rocky Mountain ranges from the oozy bed of a shallow ancient sea.

It is also evident that at some subsequent, but remote, period of time many of these mountain slopes at an elevation of from 6,000 to 10,000 feet were covered with dense forests of timber, in size fairly rivaling those now upon the Pacific coast; and that by some eruption, perhaps like that which covered Pompeii and Herculaneum, these forests were suddenly crushed or covered and encased by a sea of hot ashes, mud, and slime.

Here erosion of the elements, or the fuse, pick and shovel of the tourist unearths this ancient timber, often petrified entire, a perfect tree or log of stone; others timber in form, opal or chalcedony in fact, with amethyst or other crystallized cavities, matchless in form, color, and beauty, and for cabinet specimens, elsewhere unequaled in nature and unrivaled by art.

Many hot springs and mineral streams now petrify timber, or coat it with sparkling lime or silica, build geyser cones, and many beautiful forms of crystallization, but all clearly distinct, and mainly much inferior to those of the closing eruptive period.

As can be seen upon any map of the United States, the Snake River Fork of the Columbia, and Green River Fork of the Colorado of the Gulf of California (Pacific waters), as nearly all the other great rivers of that portion of the continent, including the Jefferson, Madison, and Gallatin

Forks, and the Yellowstone, Big Horn, and other branches of the Missouri-Mississippi-Atlantic waters, and the longest river upon our globe, radiate (often) from hot springs or spouting geysers within or adjacent to the great National Park, situate mainly in Northwestern Wyoming Territory. This is really less one large park than a group of smaller ones, partially or wholly isolated, upon both sides of the continental divide, here much lower than the nearly unbroken surrounding mountain ranges. Its average altitude probably exceeds that of Yellowstone Lake (some 8,000 feet), or nearly a half mile higher than Mount Washington; its few and yawning, ever difficult, often impassable, cañon-approaches along foaming torrents, and the superstitious awe of the hissing springs, sulphur basins, and spouting geysers, and unfrequent visits of the surrounding pagan Indians combined to peculiarly delay the exploration of this truly mystic land.

Although Lewis and Clarke, by ascending the Jefferson instead of the Madison or Gallatin Forks of the Missouri in 1805, crossed the Rocky Mountain Divide some 50 miles west of the park without its discovery, yet it is from a member of that first band of Northwestern explorers that we derive our first knowledge of its existence. Coulter and Potts, after their discharge in 1806, retraced Captain Clarke's return route, via the Yellowstone River and Bozeman Pass, to the three forks of the Missouri. They there continued to trap and hunt until Potts was killed and Coulter captured in a Blackfeet Indian ambushade below the famous Beaver-head landmark upon the Jefferson. Coulter was allowed to run the gauntlet for his life, and, being remarkably fleet of foot, distanced all but one of his pursuers, whom he pinned to the earth with his own war-lance, and escaped, over 6 miles of prickly-pear plain, to some drift-wood at the head of an island in the Jefferson. Unarmed, naked, and lacerated, he, through untold dangers, hardships, and suffering, reached a trading-post on the Lower Yellowstone, rearmed and returned to his Bannock friends, and for years hunted, trapped, and with relentless vengeance fought the Blackfeet.

The haunt of the main Bannock tribe was at Henry's Lake, west of the park, that of their little Sheepeater Band within, and their main buffalo range upon the Big Horn, east of it, and Coulter certainly visited the Great Falls, Yellowstone Lake, and some of the firehole basins and spouting geysers, and ever after his return to Missouri in 1810 gloried in describing them. Yet so little credence was given his descriptions, that for many years, even long after I was first upon the Lower Yellowstone, "Coulter's Hell" was a standing camp-fire jest upon now well-known realities, and John Coulter is, without a shade of doubt, the first white explorer of any portion of the Yellowstone National Park.

In 1809, the veteran fur-trader Henry, driven from the three forks of the Missouri by the ferocious Blackfeet, constructed and for a time occupied a stockade fort upon the outlet of the lake, which still bears his name.

W. P. Hunt and Ramsey Crooks, in their outward route to the ever ill-fated Astoria, with a strong party in 1810, and also the feeble remnant of the band during their return in 1812, crossed the Wind River Range south of the park.

The famous American mountaineers Henry, Ashley, Sublette, and Jackson, the Scottish Campbells and Stewarts, the French Pierre, Port Neuf, and Fontenelle, and other renowned trappers and traders, roamed over the regions surrounding the park until the most of them were killed by the Indians, down to the expedition of Captain Bonneville, in 1832. During that year a sanguinary battle was fought between the ever-bloody

Blackfeet and the combined bands of these fur-traders and their Bannock friends at their general rendezvous in the famous "Pierre's Hole," near the Three Tetons, within plain view of mountains within the park; and yet, most strangely, in all the published reports of these famous mountaineers, we fail to find a hint of the park or its wonders.

During nearly three years of trapping and trading with the Indians by Captain Bonneville and his detached parties, in all directions from the park, it is evident that he neither visited it nor learned its true location. For although his map of those regions was far more accurate than *any* before and *many* after it, even that shows the largest mountain lake as the head of the Snake River instead of the Yellowstone; hence Pacific instead of Atlantic waters, inaccurate in form, without a name, and no indications of the great falls, canons, or geysers, or any of the firehole basins. In fact, in his only reference to the latter (Irving's Bonneville, page 236) he erroneously locates it upon the Stinking River (now Water) branch of the Big Horn, where the sulphur fumes from an extinct geyser basin somewhat resemble those of the park, but every way less mountain-girt and important than those which Coulter saw within the park.

I have ever given much credence to a well-endorsed camp-fire legend of a mountaineer named Smith having, prior to the days of Bonneville, written a narrative of his explorations of the firehole regions, and being killed by the Indians before its publication; but have never found written proof thereof. Border legends, although often gross exaggerations, are seldom wholly false, and scores of them indicate that white mountaineers did long ago occasionally visit portions of the park for trapping or concealment, and perhaps both. This is, in fact, proven by ancient stumps of large trees cut for breastworks and for foot-logs across the Crevice, Hellroaring and other mountain torrents, which no experienced mountaineer would fail to recognize as those of white men, from being rounded from below in a way never practiced by any known Indians. Also a corral near Amethyst Mountain, and the ruins of an ancient block-house with earth roof and port-holes, clearly the work of unknown white men, near the grand cañon below Mount Washburn, and a cache of martin steel-traps of a peculiar form only used by the Hudson Bay trappers some fifty years ago, which were recently found along our road near the Indian arrowhead quarry at Beaver Lake.

In Captain (now General) Frémont's reports of his explorations in those regions in 1842-'44, he describes mountain scenery and harmless hermit Indians similar to those in the park, but no geysers; being probably ignorant of their existence.

In 1844 James Bridger told me personally, and as I now know correctly, described the cañons of the Upper Snake River, but had then neither seen nor obtained a correct conception of the geysers, deeming them real volcanoes. His description of the Two Ocean Pass south of the park is now admitted to be mainly correct, and there is more of truth than sport (as per camp-fire custom) in his famous story of a foaming torrent, icy cold at its snowy fountain-head, and seething hot half a mile down the mountain-side, though not caused, as he boasted and perhaps believed, by the velocity of the descent, but by a crag-hidden firehole basin of spouting water and seething brimstone.

So with his famous legend of a lake with millions of beaver nearly impossible to kill because of their superior 'cuteness, with haunts and houses in inaccessible grottoes in the base of a glistening mountain of glass, which every mountaineer of our party at once recognized as an exaggeration of the artificial lake and obsidian mountain which I this year discovered, as briefly stated in my explorations-chapter of this re-

port. But as its location, as also that of the arrow and lance head quarry, is across a sharp mountain range from where represented, and so long sought by trappers, it is not probable that he ever saw them, but that his information was derived from old Hudson Bay trappers or their Indian allies, alike interested in deceiving him as to their true location. These rumors of a mountain-girt land of wonders at the fountain-heads of the Missouri and Yellowstone so impressed Lieutenant (now General) G. K. Warren during his explorations of the Black Hills and great plains up to 1857, that he planned an expedition to explore it. This strong, well-equipped party, under the command of Captain (since General) W. F. Reynolds, with Prof. F. V. Hayden as geologist and James Bridger as guide, spent the season of 1859 in exploring the Black Hills and Big Horn regions, and failing to cross the towering Yellowstone Range and reach its mystic lake, wintered upon the North Platte. He renewed his efforts in the spring by sending Lieutenant Maynadier with a party down the Big Horn to again seek a pass from the east, and with the main party himself sought one up Wind River from the south. Both parties failed; Reynolds by encountering a buttressed-based, snow-capped mountain wall, to cross which Bridger declared that even a crow would need to carry his grub, or provisions.

Turning to the west and crossing the main Wind River divide, near the head of Green River, and failing in another effort to reach the cliff and snow encircled park from near the Three Tétons, he abandoned the effort, and followed the old traders' route via Henry's Fork and Lake to the Three Forks of the Missouri. He was there joined by Lieutenant Maynadier, who, failing in all his efforts to reach the park from the east, had crossed the Yellowstone in buffalo-hide boats below the gate of the mountains, and through the Bozeman Pass had reached and descended the Gallatin.—(See Ex. Doc. 77, Fortieth Congress, first session.)

The utter failure of a two years' search for the geyser basins by such well-equipped parties and led by the most famous guide of the mountains, proves them mountain-girt, isolated from the surrounding regions, with few and difficult known routes of access.

Thus baffled, the government made no further effort to explore the park until long after gold-seeking pilgrims had visited various portions of it. Prominent among these prospectors were Bart Henderson, Adam Miller, George Houstin, and C. J. Barronette around the Forks of the Yellowstone, and Frederick Bottler and H. Sprague from Henry's Lake to the forks of the Firehole River. All these were prior to 1869, when two hunters, named Cook and Folsom, visited portions of the park, but their verbal report, made to General Washburn and others who sent them from Helena, has never been published.

Having myself, long before the Reynolds expedition, failed, as he did, to reach the park from the east, I, after many years' absence from those regions, sought, in June, 1870, to reach it by ascending the Yellowstone above the gate of the mountains, accompanied by Frederick Bottler. Deep snows baffled our resolute efforts to cross the Madison Range to the geysers, and, when seeking to descend to the Yellowstone Valley below the Mammoth Hot Springs, Bottler was swept away in attempting to cross a mountain torrent above Cinnabar Mountain, losing his rifle, ammunition, most of his clothing, and nearly his life. This mishap compelled our most reluctant return from within the park through the then nearly unknown and impassable second cañon of the Yellowstone to Bottlers', then the only white ranchmen upon any portion of the mighty Yellowstone River. Thence I retraced my route to Fort Ellis, published a brief account of my trip (see No. 3 of my Journal of Ram-

bles in the Far West), and, under previous engagements, descended the Columbia to the ocean, purposing to return with a party to explore the park the next year.

During the following autumn the Washburn expedition was suddenly organized for exploration of the park. It was composed of H. D. Washburn, N. P. Langford, T. C. Everts, S. T. Houser, C. Hedges, W. Trumbull, B. Stickney, W. C. Gillett, and J. Smith.

General Washburn, in command, was then surveyor-general, at least T. C. Everts and N. P. Langford ex-officers, and all prominent and esteemed citizens of Montana Territory, well equipped; and, at Fort Ellis, joined by Lieut. G. C. Doane and seven men, they followed my return route to and up the Yellowstone through its second cañon. They missed the Mammoth Hot Springs, but visited Mount Washburn, the Great Falls and Lake, returning by the Firehole River and Madison route to Virginia City. When among the fingers of the Yellowstone Lake, Everts lost his way, horse, arms, and provisions, and after thirty-seven days of exposure, starvation, and suffering, doubtless unequaled by any other man now living, was found by Barronette and Prichette, barely alive, upon the Black Tail near the Mammoth Hot Springs. This is the first party of really successful explorers of any considerable portion of the park of which we have any public record. (See General Washburn's surveyor-general's report; also that of N. P. Langford, in the May and June, and T. C. Everts's *Thirty-seven Days of Peril* in the November number of the second volume of *Scribner's Monthly Magazine*, and Lieutenant Doane's report, Senate Ex. Doc. 51, Forty-first Congress, third session.)

The interesting letters, reports, and personal influence of the various members of this party led to Professor Hayden's interesting and valuable explorations in the wonderland in 1871. (See Professor Hayden's *Geological Surveys of 1871*.) Capt. J. W. Barlow and D. P. Heap also made valuable explorations, maps, and report of portions of the park in 1871. (See Senate Ex. Doc. 66, Forty-second Congress, second session.)

During the succeeding winter Professor Hayden was with his associates very active in publishing and distributing photograph views, sketches, and other valuable information in reference to the matchless wonderland, and in preparing, and, aided by many leading members of Congress, advocating to its passage a bill dedicating it as a health and pleasure resort for the American people under the name of the Yellowstone National Park. For its boundaries and control by the Secretary of the Interior, see hereinafter copy of the act of dedication.

For report of Professor Hayden's extensive explorations in the park, also including N. P. Langford's report as superintendent, see his report of *Geological Surveys for 1872*.

Capt. W. A. Jones and Prof. Theodore B. Comstock explored mountain passes to, and a portion of, the park, making valuable reports and maps. (See House Ex. Doc. 285, Forty-third Congress, first session.)

In 1874, the well known Scottish Earl Dunraven made a tour of the park, and published an interesting narrative. (See his *Great Divide*.)

For Secretary of War Belknap's narrative of a tour of the park, see his report of 1875.

Capt. W. Ludlow made a reconnaissance of the park in 1875. (See Engineer's Report published by War Department.)

For record of P. W. Norris's explorations in the park in 1875, see No. 24 and 25 of his *Journal of Rambles in the Far West*. Besides Moran, Jackson, Elliott, Gannett, Holmes, and other justly famous artists who have at various times accompanied Professor Hayden's and other expeditions,

J. Crissman, Calfer & Colter, Marshall, Fouche, and other photographers, have at various times visited the park, taking and widely disseminating interesting views of the great falls, geysers, hot-spring terraces, and other wonders of the park.

During all these years of exploration and research, so far as I am aware, the wisdom of Congress in promptly dedicating the National Park has never been seriously questioned; nor has its size, or its appropriate control by the Secretary of the Interior, or his rules and regulations for its protection and management, been deemed objectionable. Hence it is not what Congress has done, but what it so long neglected to do; not the dedication of a lofty mountain-girt lava region destitute of valuable minerals, isolated and worthless for all else, but matchless and invaluable as a field for scientists and a national health and pleasure resort for our people, but rather the failure to make moderate appropriations for its protection and improvement until leases could be made to assist in rendering it self-sustaining, which compelled its first superintendent, N. P. Langford, to abandon all efforts for its protection, and so long allowed destructive forest fires, the wanton slaughter of its interesting and valuable animals, and constant and nearly irreparable vandalism of many of its prominent wonders. So uniform was the testimony of the civil and military officers of the government, as well as the American and European scientists and tourists who visited the park, and so strong their appeals to the nation for its protection, or at least the sending a commissioner or an agent specially empowered to investigate and report the facts, that among the early acts of the present honorable Secretary of the Interior was my appointment as superintendent of the park and special agent to again visit it and report the facts as I should then find them for the information of himself and Congress. But for want of funds available for my salary or expenses none were furnished or even promised, other than a reliance upon Congress to make provision to properly pay for performance of duties pointed out and positively required of the Secretary of the Interior in the act dedicating the park. This will, I think, appear clearly evident by perusal of the following copy of the act of dedication, the rules and regulations of the Secretary of the Interior, and my appeals to the mountaineers as published in No. 62 of the *Norris Suburban*, several hundred copies of which were gratuitously distributed throughout the regions adjacent to the park during the spring of 1877.

AN ACT to set apart a certain tract of land lying near the headwaters of the Yellowstone River as a public park.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the tract of land in the Territories of Montana and Wyoming lying near the headwaters of the Yellowstone River, and described as follows, to wit: commencing at the junction of Gardiner's River with the Yellowstone River and running east to the meridian passing ten miles to the eastward of the most eastern point of Yellowstone Lake; thence south along the said meridian to the parallel of latitude passing ten miles south of the most southern point of Yellowstone Lake; thence west along said parallel to the meridian passing fifteen miles west of the most western point of Madison Lake; thence north along said meridian to the latitude of the junction of the Yellowstone and Gardiner's Rivers; thence east to the place of beginning, is hereby reserved and withdrawn from settlement, occupancy, or sale under the laws of the United States, and dedicated and set apart as a public park or pleasure ground for the benefit and enjoyment of the people; and all persons who shall locate, settle upon, or occupy the same or any part thereof, except as hereinafter provided, shall be considered trespassers and removed therefrom.

SEC. 2. That said public park shall be under the exclusive control of the Secretary of the Interior, whose duty it shall be, as soon as practicable, to make and publish such rules and regulations as he may deem necessary or proper for the care and management of the same. Such regulations shall provide for the preservation from injury or

spoliation of all timber, mineral deposits, natural curiosities, or wonders within said park, and their retention in their natural condition.

The Secretary may, in his discretion grant leases for building purposes for terms not exceeding ten years, of small parcels of ground, at such places in said park as shall require the erection of buildings for the accommodation of visitors; all of the proceeds of said leases, and all other revenues that may be derived from any source connected with said park, to be expended under his direction in the management of the same and the construction of roads and bridle-paths therein. He shall provide against the wanton destruction of the fish and game found within said park and against their capture or destruction for the purposes of merchandise or profit. He shall also cause all persons trespassing upon the same after the passage of this act, to be removed therefrom, and generally shall be authorized to take all such measures as shall be necessary or proper to fully carry out the objects and purposes of this act.

Approved March 1, 1872.

(See Revised Statutes of the United States, page 453.)

RULES AND REGULATIONS.

1st. All hunting, fishing, or trapping within the limits of the Park, except for purposes of recreation, or to supply food for visitors or actual residents, is strictly prohibited; and no sales of fish or game taken within the park shall be made outside of its boundaries.

2d. Persons residing within the park, or visiting it for any purpose whatever, are required under severe penalties to extinguish all fires which it may be necessary to make, before leaving them. No fires must be made within the park except for necessary purposes.

3d. No timber must be cut in the park without a written permit from the superintendent.

4th. Breaking the siliceous or calcareous borders or deposits surrounding or in the vicinity of the springs or geysers for any purpose, and all removal, carrying away, or sale of specimens found within the park, without the consent of the superintendent, is strictly prohibited.

5th. No person will be permitted to reside permanently within the limit of the park without permission from the Department of the Interior, and any person now living within the park shall vacate the premises occupied by him within thirty days after having been served with a written notice so to do, by the superintendent or his deputy, said notice to be served upon him in person or left at his place of residence.

To whom it may concern :

Under the above laws, rules, and regulations, and my peculiar circumstances of health, long acquaintance, and business interest in those regions, I have accepted the responsible, but as yet neither lucrative nor desirable position of superintendent of the Yellowstone National Park. Have appointed J. C. McCartney, esq., proprietor of the Mammoth Hot Springs Hotel, assistant until my arrival via the Yellowstone River route, I trust in June, unless delayed by the Indians.

Meanwhile, *bona-fide* occupants of buildings, bridges, mines, &c., will, by due regard for the above rules and the future interests of the public in the park, be allowed quietly to remain. The outburst of national enthusiasm at discovery of the matchless wonders of the firehole and geyser basins, amid the Rocky Mountains, secured their prompt dedication as a national park for the weary and worn business man, the tourist, and the scientist forever; also, provision for the appointment of a superintendent under proper rules and instructions, but not the necessary appropriations to reward the one for the enforcement of the other.

My predecessor, Mr. N. P. Langford, did all and more than proper to expect under the circumstances while in Montana, but with his return East all restraint ceased, and for fully two years, careless use of fire, wanton slaughter of rare and valuable animals, and vandalism of matchless wonders have, as so truthfully published in letters of myself and others, been doing irreparable injury in all the explored portions of the park.

Under these peculiar circumstances, in the interest of science and of the tourist now and in the future, the welfare and good fame of the people of Montana, Utah, and Wyoming in general, and especially to my old mountain comrades and friends, do I most earnestly appeal, to abstain, and use all influence in urging others to desist from future vandalism of all kinds in the lofty, romantic "wonder-land."

With the closing of the Sioux war, extension of the Northern Pacific Railroad, opening of the Yellowstone natural route, and the Big Horn Mountains for explorations of their vast gold and silver mines, and influx of sturdy miners and herdsmen, will soon gather wealth, build towns, and open safe and convenient routes of access to this now isolated, little known, but matchless national heritage of wonders.

That the spirit in which I write and act in this matter may extend to the press and the people of those mountain regions and the tourists who visit them is my ardent desire.

P. W. NORRIS,
Superintendent of the Yellowstone National Park.

NOTE.—The boundaries of the park have never been surveyed, but they are mainly crests of snow-capped basaltic mountains encircling the wonder-land of cataracts, cañons, firehole basins, geysers, salses, fumeroles, &c., unique and matchless, with entire area from 50 to 75 miles square. N.

These rules and regulations are those adopted by the Hon. C. Delano, Secretary of the Interior, at the dedication of the park.

Under these circumstances I ascended the Yellowstone, visited most of the park and its routes of access, including the exploring of an important cut-off route; and, too seriously injured at Tower Falls to otherwise return, descended the Yellowstone from above the gate of the mountain in a skiff, and reported facts and suggestions which were merged in the honorable Secretary's report of 1877, part first, page 837, and also deemed worth a publication in pamphlet form. (See Report of the Superintendent of the Yellowstone National Park for 1877.)

After a long and careful investigation of the whole subject, and in consideration of the written opinions of the prominent scientists and explorers of our country, this cautious and prudent Congress at its first session, with a flattering unanimity, made an appropriation of \$10,000 for the protection and improvement of the park. For an account of my expenditure thereof reference is respectfully made to the appropriate chapter of this report and attached map of the park.

In addition thereto I may justly add that—unlike General Sherman in his tour of the park just in advance of last year's raid of the hostile Nez Percés, and General Howard in their pursuit, without roads—Generals Miles and Brisbin, in their military operations of this year, as well as the various parties of Professor Hayden's geological survey, the Berthold party of engineers in running a line for a branch of the Utah Northern Railroad, from Henry's Lake to the upper geysers, as well as many parties of tourists, have utilized my roads and other improvements as fast as made, thus opportunely rendering them of present as well as future convenience and benefit. With the expeditions of Generals Miles and Brisbin were Colonel Baker, Captains Baldwin and Egan, Lieutenants Douglas, Pope, Long, and other battle-scarred veterans of the Indian wars; Mrs. General Miles, sister of the wife of Senator Cameron, of Pennsylvania, and other ladies of distinction; the Rev. Dr. Hoyt, of Brooklyn, N. Y., and other prominent speakers and journalists.

Besides these, Lord Stanley, English; Colonels Schultz and Koster, German; and many parties of American tourists, despite the Bannock raids, safely visited the park during the past season. The unanimous testimony of this long list of civil and military officers or agents of the government, and the scientists and tourists of our own and other lands, proves the Yellowstone National Park one of surpassing interest, a concentration of petrified forests and balmy groves, of lovely lakes, matchless falls, and yawning cañons; of azure pools and spouting geysers, unique and unrivaled—truly the peerless cliff and snow encircled wonder-land of earth, well worthy the fostering hand of the representatives of our people, whose priceless heritage it is.

P. W. NORRIS,
Superintendent of Yellowstone National Park.

Hon. CARL SCHURZ,
Secretary of the Interior, Washington, D. C.

APPENDIX.

Summary of weather reports kept in the Yellowstone National Park during the season of 1878.

That portion of July which was taken would average, at sunrise, 57° ; at midday, 80° ; and at sunset, 74° .

The month of August, the morning average was 44° , and ranging from 32° to 60° ; at noon, average 78° , ranging from 62° to 88° ; at sunset, average 64° , ranging from 48° to 82° .

The month of September, the average at sunrise, 39° , ranging from 24° to 60° ; at midday, average 61° , ranging from 38° to 78° ; at sunset, average 51° , ranging from 36° to 74° .

The first fifteen days in October average, sunrise, 41° , ranging from 24° to 54° ; mid-day, average 57° , ranging from 46° to 70° ; and at sunset, average 51° , ranging from 42° to 60° .

Routes and distances to the Park.

The following facts and suggestions will be of practical interest to our people in reference to the only two present or prospective routes of access to their heritage of wonders in the Great National Park. These are the northern or Yellowstone, and the southern or railroad, and as Omaha and Bismarck alike possess the advantages of Missouri River navigation and direct railroad connection with all portions of our country, they may be properly deemed starting points upon their respective routes.

The northern route from Bismarck is still the natural one, by steamboat up the Missouri, 400 miles; the Yellowstone 360, to the mouth of the Big Horn, and probably some 60 further that of Clark's Fork; and by coach 160 miles to Bozeman, the main town and outfitting point of those regions. Thence it is by coach 72 miles to the Mammoth Hot Springs, within the Park—from Bismarck, distance 1,050 miles; time ascending, 12 or 14 days; descending, much less; expenses, about \$100.

The southern route is by the Union Pacific Railroad from Omaha to Ogden, near Salt Lake, 1,033 miles; Utah Northern to Port Neuf Cañon, near Snake River, 150 miles; coach via Pleasant Valley and Virginia City, 380 miles to Bozeman, and 72 miles to the Park, or an aggregate of 1,635 miles; time, 10 days; expenses, \$200.

A saving of 30 miles can be made in the Yellowstone route by following it through the Gate of the Mountains instead of via Bozeman; and considerable time, distance, and expense upon the southern route by entering the Park from Virginia City, 90 miles from Bozeman. With little doubt both these routes will be materially shortened during the coming season: the southern, by extension of the railroad 70 miles to the crossing of Snake River at Eagle Rock, then coach some 150 miles via Henry's Fork and Lake to the Lower Geyser Basin within the Park, some 50 miles nearly south by the road this year constructed from the Mammoth Hot Springs. By the anticipated construction of the Northern Pacific Railroad from Bismarck to the Yellowstone, near the mouth of Powder River, some 600 miles of river route will be exchanged for 250 of railroad; the routes then standing approximately: Northern—Bismarck to the Mammoth Hot Springs, distance 700 miles; time, 8 days; expenses, \$60. Southern—Omaha to the Lower Geyser Basin, distance 1,400 miles; time, 6 days; expenses, \$100; showing that, as now, one route requires the most time, and the other the most money; but practically tourists should go one route and return the other.

Routes within the Park.

ROAD TO THE GEYSERS.	Between points.	Total.
	Miles.	Miles.
Mammoth Hot Springs to summit of the Terraces	3	.....
Obsidian Cañon	14	17
Norris Geyser Plateau	11	28
Falls of the Gibbon	10	38
Howard's road junction with southern route.	7	45
Lower Geyser Basin	6	51
Midway Geyser Basin	4	55
end of all road at the Upper Geyser Basin ..	5	60

ROAD TO THE GEYSERS.		Between points..	Total.
		<i>Miles.</i>	<i>Miles.</i>
MOUNT WASHBURN TRAIL VIA THE GREAT FALLS AND LAKE.			
Mammoth Hot Springs to the Forks of the Gardiner.....		2	.....
Cañon and Falls of the East Gardiner.....		2	4
Black-tail Pond.....		6	10
Devil's Cut, or Dry Cañon.....		5	15
Forks of the Yellowstone.....		5	20
Tower Creek Falls.....		3	23
Old Ruin.....		5	28
Pass in east spur of Mount Washburn.....		2	30
brink of the Grand Cañon.....		8	33
Great Falls of the Yellowstone.....		3	38
Sulphur Mountain.....		6	44
Mud Volcano.....		4	48
foot of Yellowstone Lake.....		8	56
return to Mud Volcano.....		8	64
Mary's Lake.....		10	74
Lower Fire-Hole Basin.....		16	90
Upper Fire-Hole Basin.....		10	100

A trail is greatly needed from the Upper Fire-Hole Basin to those of Shoshone, Lewis, and Heart Lakes, and those upon the fingers and eastern shore of the Yellowstone, some 100 miles in length, and the Pelican Creek route of 35 miles to the East Fork of the Yellowstone, at the mouth of the Soda Butte.

As the very limited building accommodations at the Mammoth Hot Springs are all which are likely to be found in or near the Park the coming season, tourists should outfit at Ogden, Bozeman, or Virginia City, or, if reaching the Park by coach, excellent saddle and pack animals will be abundant at \$1; guide and packer, \$2 each per day.

Time actually necessary for a tour of the main wonders of the Park, ten days; twice that more enjoyable; and August the best month, although July is only marred by flies, which nearly devour the animals; September good, except a severe equinoctial storm; and October, save deep snows in the passes.

The best plan is to make the Park the main object and turning-point in a season's rambles, visiting both the Salt Lake and the Yellowstone Valley regions upon the outward or return routes.

There is now all promise of a summer post for protection from Indians, if necessary

REPORT OF THE COMMISSION APPOINTED UNDER THE
PROVISIONS OF ACT OF CONGRESS OF MARCH 3, 1877,
REGARDING THE HOT SPRINGS RESERVATION IN THE
STATE OF ARKANSAS.

OFFICE OF THE UNITED STATES HOT SPRINGS COMMISSION,
November, 1878.

SIR: We have the honor to submit the following statement giving the results of our labors since the original appointment of the Hot Springs Commission, also showing briefly what remains to be done in order to fully meet the provisions of the act providing for the disposition of the Hot Springs Reservation.

On April 28, 1877, we entered actively upon the discharge of our duties under the act approved March 3, 1877.

The purpose of creating the commission was to dispose of 2,560 acres of land owned by the government, being a tract of land two miles square, comprising the city of Hot Springs, or what is commonly called the Hot Springs Reservation, upon which about four thousand people have their homes and places of business. These people were attracted there by the renowned and wonderful curative qualities of the hot springs. They have expended large sums of money in building hotels and other improvements, and have a well-organized city government.

The law implies that certain of these people shall have the first privilege (for the period of one year after the final settlement) of purchasing the land occupied and improved by them, at an appraisal to be fixed by the commission, and gave the claimants six months from the day of the organization of the commission in which to file their claims.

Forms of petitions were prepared in accordance with the law, so that the same might be uniform, and every effort was made to induce the claimants to file their claims early, but the result proved that more than half the claims, including all the more important cases, were filed during the last two weeks of the term fixed by law.

The time allowed for filing claims expired on October 27, 1877, and at twelve o'clock that night nine hundred and fifty claims had been presented.

The petitions contain a plat and description of the ground claimed, showing the adjoining claimants, the time and circumstances under which the claimant had occupied the same, the character and value of the improvements thereon, and generally the reasons why the claimant should be entitled to purchase the same.

As required by law, the commission designated in one boundary a tract of land containing all the hot and warm springs, and the Hot Spring Mountain, so called (being in all about 265 acres), to be reserved from sale forever, and this designation was approved by the Secretary of the Interior.

About 2,300 acres remain to be disposed of under the provisions of the act of March 3, 1877.

The law required the commission to hear any and all proof offered by the claimants in support of their petitions, and also on the part of the United States.

More than six months were occupied in taking testimony, and in that time 2,750 witnesses were examined stenographically. Testimony was fully taken in 897 cases. Thirty-one cases were dismissed or withdrawn by the petitioners, and in 22 cases no testimony was offered.

The mass of oral testimony taken and the documentary evidence is fully equal to 25,000 legal-cap pages.

Accurate surveys have been made of the four sections of land comprising the entire tract known as the Hot Springs Reservation; boundaries have been re-established, and permanent monuments erected on the exterior and section lines and corners. Suitable monuments have also been set at each angle of the permanent reservation, 36 in number.

Claims of individuals have been surveyed and platted on 16 large maps, representing the quarter-sections.

A topographical survey has been made of the entire reservation, and three maps prepared and photolithographed—one topographical map, one claim map, and the third combining the two.

The commission gave diligent attention to all matters coming before them, but found themselves unable to complete the work in the period of one year (that being the limit of their term of office), and at the last session of Congress a measure for continuing the work of the commission, and making the necessary appropriation therefor, passed both houses, but failed to become a law by reason of clerical omission in enrollment.

The work necessarily left unfinished involved the interests of a large population, as well as the United States, and was deemed of so much importance that the proper authorities made the matter the subject of earnest discussion, and finally determined that it was for the best interests of all concerned that the work should proceed with as little interruption as possible, and the following letter was received by the undersigned:

DEPARTMENT OF THE INTERIOR,
Washington, D. C., June 25, 1878.

GENTLEMEN: The President directs me to request you, as the late commissioners appointed under the act of March 3, 1877, to settle the conflicting claims to a portion of the Hot Springs Reservation, in the State of Arkansas, and for other purposes, to take charge of the records of your proceedings under the said act, and to proceed to the consideration of the testimony in all the cases in which testimony was taken in relation to the rights of the respective claimants to any part of the Hot Springs Reservation, and to perform such work as may facilitate the early adjudication of such claims, and also to report to this department what measures may appear to you necessary to protect the rights of all parties upon said reservation, as well as the interests of the United States, trusting that Congress at its next session will adopt such legislation as may be necessary to confirm the acts done by you in the mean time, and provide for a due compensation for your services.

In view of the fact that fears are entertained that serious difficulties may arise between the conflicting claimants to portions of said tract, you are requested to enter upon the discharge of the task above indicated at as early a day as possible, and that such steps shall be taken by you as may be necessary to preserve the present status of the claimants until their rights are finally determined.

Very respectfully,

C. SCHURZ,
Secretary.

Hon. AARON H. CRAGIN.
Hon. JOHN COBURN.
Hon. M. L. STEARNS.

We accepted the trust and at once entered upon the discharge of the duties indicated in the foregoing letter.

We were without funds, and have as far as possible done everything in our power to facilitate the early settlement of the vexed questions arising from the conflicting claims of the residents upon the reservation.

After reassembling at Hot Springs and perfecting arrangements as far as possible for preserving the peace and protecting the interests of all parties, it was thought best to remove the records of our proceedings, testimony, books, and other papers to Washington; this was done for greater safety and for the purpose of facilitating the work intrusted to us. This procedure had the approval of the department.

An office was assigned to the commission by the Interior Department, since which time the examination of testimony has continued without interruption. We have made the examination in all but a very small number of cases, and have prepared an abstract of facts proven in each case, so that the final adjudication will be greatly facilitated. We expect to complete the examination of the testimony in all the cases by the 1st of December next. This labor involved the reading and digesting of all testimony, documentary and otherwise, in eight hundred and ninety-seven (897) cases. Stenographer's notes, not before written out, amounting to about 3,000 pages of foolscap, have been transcribed and properly filed with the claims.

Careful consideration and much study have been given the subject of laying out, widening, and straightening streets, a matter of very great importance.

The office at Hot Springs has been open continuously and every interest of the United States carefully guarded.

The work contemplated by the law and remaining unfinished is as follows, viz:

First. Straightening and widening old streets; laying out new streets, avenues, alleys, &c., in the entire town of Hot Springs. This work requires careful study and a high order of engineering, as the ground is of peculiar nature.

Second. The hearing of arguments in contested claims, and the final adjudication in 897 cases, and the preparation of findings in each case. About one-half the cases are simple and undisputed, the main question being on the facts whether the claimant is entitled to the whole or a part of the land he claimed. The other cases are more or less complicated and conflicting, two or more persons claiming the same lot, involving disputed questions of fact and law.

Third. The appraisal of each lot awarded.

Fourth. The resurvey of each lot, after adjudication of the claims, in order to define the lines and ascertain the exact amount of ground to be certified to each claimant as required by the law.

Fifth. The appraisal of improvements upon each lot awarded. The claimant does not pay for the improvements but the law requires their appraisal.

Sixth. The division of the land not claimed or awarded, into lots, squares, or blocks, and appraisal of the same, preparatory to the sale to the highest bidder, but not less than the appraisal.

Seventh. Preparing and issuing certificates to each claimant, who is adjudged the right to purchase, setting forth the amount of land claimant is entitled to purchase, the value thereof, character and value of improvements; these certificates being the only evidence of claimant for foundation of patent.

Eighth. Condemning all buildings upon the permanent reservation and in the line of streets, appraisal of the same, and preparing and issuing certificates therefor.

Ninth. Preparation of map embodying the results of the whole work to be filed with the Secretary of the Interior, accompanied by the schedule provided for by the law.

Some time will be required in notifying parties who may desire to argue contested claims to appear, and in arranging the cases for hearing. There is a large number of contested claims (300 or 400), but we cannot say in how many the contesting claimants will desire to make oral arguments or present written or printed briefs, but we have reason to believe that a large number of oral or written arguments will be submitted. These cases involve very important interests, and are entitled to a full hearing upon all questions.

The prosperity and well-being of a numerous population and the very great pecuniary interests of the United States demand that action should at once be taken looking to an immediate settlement of all questions involved. At least ten thousand visitors from nearly every State in the Union and from foreign countries are annually attracted to the city of Hot Springs in search of health, and this number will be largely increased in the future, when the titles to the land are settled and needed improvements are made.

We see no reason to change the opinion already given in a former report relative to appropriations required to complete the work. The amount agreed upon by Congress at its last session and the unexpended balance of the last appropriation will be necessary to carry out the intention of the law.

AARON H. CRAGIN.
JOHN COBURN.
M. L. STEARNS.

Hon. CARL SCHURZ,

Secretary of the Interior, Washington, D. C.

REPORT

OF THE

SUPERINTENDENT OF THE HOT SPRINGS RESERVATION.

HOT SPRINGS, ARK., *November 15, 1878.*

SIR: I have the honor to make the following report, embracing the time from October 1, 1877, to June 1, 1878. I entered upon my duties as superintendent of Hot Springs Reservation early in October, 1877. My first duty was the removal of some three or four hundred people encamped on the western slope of the Hot Springs Mountain, in close proximity to the hot water springs. These people embraced almost every nationality, both sexes, white and colored. They were most of them living in shanties or tents, but some of them were encamped under the trees with no other shelter. Most of them were afflicted with disease, and many of them worthless and desperate characters; they were destroying the timber and shrubbery and polluting the springs. On the 20th day of October I gave them notice to move off the reservation within thirty days; many of them removed at once, but quite a number were great invalids, and having no means, were unable to move, being supported by charity. I had no funds in my hands for the purpose of moving and providing for them. I was therefore compelled to appeal to the guests and citizens for means; to this appeal they responded most liberally, and supplied me with money sufficient to erect comfortable barracks on the south side of the mountain, make two commodious and comfortable bathing pools, one for men and one for women, and convey the hot water in iron pipes to them. The barracks or hospital accommodates about sixty invalids on the average. This destitute class are better provided for than ever before.

I had great difficulty in arriving at a satisfactory and equitable mode of affixing the water rents, but finally adopted, with your approbation, the rate of five dollars per tub per month, which seemed satisfactory to the wants of bath-houses, *and which price, in my judgment, should hereafter be maintained.*

Early in March last we had a terrible conflagration, which burned almost the entire business portion of the town. The buildings on the east side of Valley street from the southwest corner of the reservation proper, including three bath-houses, up to near the Big Iron Bath House, were entirely consumed. I have had great trouble in preventing parties from rebuilding on this portion of the reservation, but have thus far succeeded.

The corporation have taken the responsibility of erecting on the southwest corner of the reservation proper a city hall and fire-engine house, which is now being used for the mayor's office, and for city, county, and superior courts. The mayor assures me that it will be promptly removed whenever required by the Secretary; the corporation having no other site that was convenient for the purpose.

Early in June, in consequence of the spread of yellow fever throughout the Southern States, I deemed it important toward preventing sick-

ness here, that that portion of Hot Springs Creek running through the reservation should be thoroughly cleared out, so as to give the water a clear and swift passage. This I did with your approbation, at a cost of seventy-five dollars. I also paid F. C. Stearns, by your direction, eighty dollars for care of Commission papers; also H. A. Whittington, for rent of room for same, thirty-three dollars. Thirty-seven dollars carried to the July account. The balance of water rent collected up to June 30, 1878, is deposited in the Merchants' National Bank, Little Rock, Ark., amounting to \$5,035, making a total collection of water rent \$5,260.

Very respectfully,

B. F. KELLEY,
Superintendent.

Hon. CARL SCHURZ,
Secretary of the Interior.

REPORT
OF THE
GOVERNMENT DIRECTORS OF THE UNION PACIFIC
RAILROAD.

BOSTON, *December 7, 1878.*

SIR: With the exception of a single one of their number (Mr. Chadwick, of Connecticut, who was originally made a member of the board in March, 1877), all of the present government directors of the Union Pacific Railroad were appointed within the present year. They none of them had any previous knowledge of the affairs of the corporation, or were more than generally informed as to its relations with the government. Under these circumstances it was fortunate that very shortly after their appointment was decided upon, two acts of Congress were passed which greatly simplified their work. By one of these acts the annual payments, allowances, &c., to be made to the government by the Union Pacific were fixed; while by the other a new bureau was established, in connection with the Department of the Interior, for auditing the accounts of that company, among others. These two measures of legislation effectually relieved the present government directors from further considering many subjects which had engaged the attention of their predecessors. For the immediate time being, and at least pending the action of the courts in cases arising out of the operation of the acts referred to, and which are now, it is understood, ready for decision, the financial relations of the government and the Union Pacific must be considered as definitely settled. This subject, therefore, calls for no further discussion. As respects also the condition of the company's finances, its resources and the disposition made of them, the government has its own auditor, and is in immediate possession of all the facts and statistics which it would be in the power of government directors to furnish. Neither have the present directors thought it incumbent upon them to further investigate questions of the past connected with the construction of the Union Pacific road or its earlier operations. They have, on the contrary, deemed that they would best subserve the purpose of their appointment by strictly confining their attention to questions of the present, giving the department such information as they might be able to procure relating to the existing condition of the property, and the policy now pursued by the direction in the management of the company's affairs.

The usual yearly inspection of the road was made in September and October last. All of the members of the board took part in it, with the exception of Mr. Chadwick, who was prevented from so doing by business engagements. He therefore does not join in that portion of the report derived from personal observation of the property or its management on the spot. Both locally upon the line and in the general offices of the corporation at New York and Boston every facility has at all times

been afforded the directors toward obtaining whatever information they may have desired. No disposition to withhold or conceal has at any time been apparent. On the contrary, from the beginning, the fullest investigation seemed rather to be courted; while more than once the feeling has been openly expressed that justice has not been done either to the actions or intentions of those now responsible for the management of the company's affairs. A public inquiry, at once impartial and intelligent, could, it was claimed, result only to its advantage.

So far as the inquiries of the present government directors have gone, they have been of a general character, and have related solely to the two subjects already referred to—the material condition of the property and the business policy of those managing it. As respects these also, the inquiry has necessarily been both partial and superficial. The conclusions arrived at, so far as they go, are in many respects quite different from what the directors anticipated when the inquiry was begun. Such as they are, however, they could not be avoided.

In passing upon the material condition of the Union Pacific Railroad, the first point to be determined is the standard by which it shall be judged—whether by that in use on the Eastern trunk lines, or by that in use on the best roads of the Mississippi Valley, or by the less severe standard which is usually applied to the newer roads west of the Missouri. In view of the facts, which it is unnecessary to more than refer to, connected with its organization and construction, it seems manifestly right that the Union Pacific should be judged by the most severe standards known among the railroads of the country. No good reason is apparent why it should not be held strictly to this test, or why its owners and officers should object to it. As is matter of common knowledge, the road was practically built out of the public money, and the stock, which now represents its ownership, represents little besides the enterprise and energy which the original constructors put into their undertaking. The corporation, on the other hand, received from the government an indorsement of unprecedented liberality. The road was designed to be a great national thoroughfare; a monument of public liberality and of private enterprise. Under these circumstances, those representing the government in the conduct of its affairs would clearly not be justified if in their inspection they applied any standard short of the highest known to the railroad system of the country. Especially would this be so when, as in this case, the road, as a commercial enterprise, has proved a brilliant success; when its annual gross earnings, falling but little short of \$13,000,000, are the largest, with five exceptions only, in our whole railroad system. Neither are those earnings peculiarly absorbed in the necessary operation of the road. On the contrary, while but three companies only in the country—the New York Central and Hudson River, the Pennsylvania, and the Central Pacific—report larger annual net proceeds, the percentage of operating expenses to gross receipts (42 per cent.) has during the last three years averaged lower with the Union Pacific than with any other great railroad company, without exception. These facts are referred to in this connection, not to prejudice the corporation, but simply to fix beyond a question the character of the standard which should be applied to its road.

In applying that standard, however, the directors have endeavored to bear continually in mind the peculiar conditions of climate, soil, traffic, and population under which the Union Pacific is operated. While in many respects most favorably placed for economical working, that railroad is also subject to natural laws which seem peculiar to itself. For instance, the line was originally laid out and the road was constructed

rather, it would seem, to save time and money and to earn a mileage subsidy than with any regard to what are considered sound engineering rules. It was a surface road, in which cuts and embankments were carefully avoided, without regard to curvature or undulation of track. As the subsidy was paid by the mile, such a method of construction, while it saved money on the one hand, earned it on the other. In gradually converting this original structure into a first-class permanent work, it would naturally be expected, according to all established precedent, that the alignments would be rectified, the embankments made higher, and the cuts deeper, while the surface undulations would have been reduced to grade. Experience, however, has shown that, whether sagaciously designed or otherwise, the original construction was for this particular road the best construction possible. It has enabled the trackmen to contend successfully with the clouds of fine dry snow which drift in winter over the plains, filling every cut, but blowing clear of all embankments. Accordingly the whole tendency of the company in the renewal of its road-bed has been to seek the shoulders of the hills by curves and undulations, instead of going through them on straight lines at an even grade. The effort is to keep the track at all points slightly elevated above the country through which it runs.

So, again, as respects mason work. In the usual process of first-class railroad renewal the gradual substitution of stone for trestles and piling is assumed as a matter of course. The Union Pacific, as regards certain large portions of its line, seems to be an exception to this rule. In many places the company is now even taking out original mason work of a fair order and replacing it with piling. This, too, is done because experience has shown that, in their soil, and with the climatic conditions under which they work, masonry is far more liable to wash-outs than piling. The annual rain-fall is not large, but at times it comes in torrents. No ordinary provision is then adequate for the water's escape, and where the surface of the soil has been broken to put in mason work, without carrying its foundations down to bed-rock, the superstructure is peculiarly liable to be undermined and swept away.

The same climatic conditions, on the other hand, affect the road most favorably as respects its economical operation. The character of the soil and its freedom from water obviate the great difficulty of frost, against which the Eastern roads are forced to unceasingly contend. On very large portions of the Union Pacific the directors were assured that the track and road-bed came each spring out of the winter in much the same condition, apart from regular wear, in which they went into it. The soil neither heaves nor washes. This again immediately affects the life of rails and ties, as well as the condition of the rolling-stock. Indeed, cottonwood ties were pointed out which had apparently been in the track since the original construction of the road ten years ago, and which were still in good order.

As respects fuel, ballast, and building material, except wood, the Union Pacific, as compared with the generality of Eastern roads, is most advantageously placed. Contrary to all expectation, and again, in apparent defiance of experience, the native soil thrown up from the roadside during the process of original construction has, on a large portion of the line, proved itself a ballasting material of the best description. Dry, elastic, and easily handled, it calls for no foreign admixture, and would hardly be improved by it. For only 80 miles of the entire line, or but 8 per cent. of the whole, is foreign ballast even deemed necessary. So also as respects fuel and building material. They are found in great plenty and of the best description directly on the line of the road, although in many

cases a long haul is required to get them where they are needed. Yet this haul is in every case wholly over the company's own rails, and for it they can use their own returning rolling-stock at their own convenience. Practically its cost is thus reduced to a minimum.

In the matter of grades, also, the line is, considering the elevation necessary to be overcome, most fortunately circumstanced. The whole eastern half of it, a distance of more than 500 miles, is a gently ascending western grade, averaging 10 feet to the mile; while the heavy grades of the mountain divisions are limited to three localities, respectively of 60, 50, and 80 miles in extent, in which 90 feet to the mile is the maximum, and that at one point only. Of the entire 1,036 miles of the road, over 800 are most easy of operation. Nor is this all. The overcoming of grades is, of course, a mere question of power. In the case of the Union Pacific, the grade and the power which overcomes it are met together. As the coal-mines are in the mountain divisions, allowing for the difference between the value of coal at the mouth of the mine (\$1.13) and in Omaha (\$7.50), it would actually seem to cost the Union Pacific but a trifling amount more to haul its trains over the mountains west of Cheyenne than it does to haul them over the plains east of that point.

As respects water and the price of labor, the company operates its road at certain points at a serious disadvantage. Indeed, in the western divisions the absence of good water is probably more seriously felt than the presence of the grades. In the matter of snow, on the other hand, the difficulties originally apprehended have been, to a great extent, overcome, and the expenses reduced until they are no longer material. The officers have learned how to deal with it, and during the last three years the entire cost of removing ice and snow, including the repair of sheds and fences, has added hardly one cent per mile to the expense of running trains.

In passing upon the material condition of the line, it should also be borne in mind that in the traffic which the Union Pacific is called upon to accommodate there is little which requires frequent or expensive handling; that is, the business, both freight and passenger, through and local, whether originating and ending on the line of the road or not, is usually carried long distances; so that none of the complicated movement and frequent interchange of trains is required which is usual on Eastern roads. This, of course, necessitates no such elaborate and costly arrangement of tracks, sidings, yards, buildings, and general appliances as is found upon roads with much smaller traffic in other portions of the country. These need not, therefore, be looked for. The Union Pacific at present requires only those accommodations necessary for doing a business of the simplest known character.

Taking all these things into consideration, and making full allowance for them, the directors are unable to say that the present condition of the Union Pacific road is in all respects satisfactory. On the contrary, when measured by the standard which has been suggested, its deficiencies are many and apparent. The policy, as respects the completion and renewal of its road, which the company apparently has pursued and now is pursuing, might, perhaps, if judged by the test of strict business principles, in the shrewd management of a practical monopoly, be deemed a fairly liberal one. In making their examinations, it is true, the present directors labored under the great difficulty of having no previous knowledge upon which to base a comparison, but it is, nevertheless, sufficiently obvious that the property, instead of deteriorating, is being brought up with steadiness, though slowly, to a fair degree of average excellence. It is still, however, far short of what, with its orig-

inal endowment and large present earnings, it ought to be—and very far short in almost every respect of that high standard of excellence, both in scope and in detail, to which those familiar with the great trunk-lines of the country are now accustomed.

As regards the local management, the directors are not sufficiently acquainted with those who compose it to offer any criticism of value. The officers are doubtless competent energetic, and faithful, as, unquestionably, they are experienced. There is, however, nothing in the present shape of the organization, as regards division of labor and study of detail, which would indicate that it is the work of any superior organizing mind. It gives rather the impression of being simple even to crudeness, and quite lacking in system. This absence of thorough organization is very apparent whenever results are examined in detail. On the road itself, for instance, it is evident that the standard of excellence, where it has been established at all, has not been fixed high enough or rigidly insisted upon. It is true that the Union Pacific has always been operated and renewed under circumstances unfavorable at least to its thorough reorganization. Its ownership has more than once changed; and, as is well known, it has at times been in hands more solicitous as to movements of the stock market than honestly desirous of attaining even material excellence. The local management has accordingly never been the responsible management; nor, however good and comprehensive its ideas may have been, has it ever occupied a position which would have enabled it to carry them out. Meanwhile it is obvious that no system whatever has been pursued in filling up the subordinate situations. As vacancies occurred, officers have come to the road from all sections of the country, and have brought with them theories and methods which are far from uniform. The result is that there is no apparent uniformity of work. While the individual division superintendents and road-masters appeared efficient and faithful, they did not recognize the same standards, nor, it was obvious, did they, in many cases, have any conception of what the highest standards were.

This singular absence of system appeared throughout, and in matters well calculated to excite surprise. The directors, for instance, were unable to obtain any profile or detailed map of the road to aid them in their examinations. To satisfactorily inspect a road without this, or a considerable previous familiarity with it, is, of course, impracticable; and yet it appeared that, if such documents ever existed, they had been destroyed and had not yet been replaced. So also as respects mile-posts; if the Union Pacific ever has been divided off, except by section posts, the metes have long since disappeared, so that it is now extremely difficult to locate anything upon its line except by stations and bridges. The unfortunate absence of standards is, however, most apparent in the motive power and track of the company. For this, of course, the present management is but partially responsible, and it is using its efforts to reduce the existing chaos into something like order. This, however, will require time. Locomotives and rails which are still good cannot, of course, be discarded because unfortunately they were purchased of every possible pattern in the early days of the enterprise.

Passing further into detail, the directors found the general offices of the corporation at Omaha, the new depot building at Council Bluffs, and the several roundhouses at the division centers, all excellent structures and creditable to the company. This cannot be said of the stations and other buildings on the line, even those at the converging or central points, like Ogden, Cheyenne, Kearney, and Omaha. Originally cheap and temporary, the structures at these points have deteriorated with time

and use. Large and expensive renewals in this respect should already have been made, and cannot much longer be deferred.

The general repair-shops of the company at Omaha may originally have been laid out upon a convenient plan; but, if so, it was one which unfortunately did not admit of extension. Accordingly, as the requirements of the company have increased, these shops have become inconvenient, and their reconstruction on a large scale would seem to be a mere question of time. The division shops, on the other hand, as well as the rolling-mills at Laramie, seem to have been well designed, and are amply sufficient for all requirements, both present and future. Judging by a very superficial examination, and the results as seen through the returns, the shops seem to be well and skillfully managed and open to no criticism.

The road seems to be liberally equipped with rolling-stock, which is apparently kept in very good order. There is a great abundance of excellent motive power, though the locomotives are of a number of different patterns. Indeed, this department of the company's service, perhaps more than any other, reflects credit upon it.

As respects its bridges, the company seems to be pursuing a systematic and sufficiently liberal policy of renewals. The original structures have lasted remarkably well. The larger wooden truss-bridges are now being replaced by iron, and the trestle and pile bridging, where it could not be gotten rid of by embankments, seems to be kept in thorough repair. For reasons which have already been referred to, the substitution of mason-work for piling in the smaller bridges and culverts does not form a part of the company's policy of renewals.

The road-bed is, as a whole, not yet brought up to the proper standard, as it is in many places light, narrow, and low. It is, however, being rapidly lifted and improved, and it is safe to say that the work of renewal in this respect will more than keep pace with the renewals of iron. If the principle, as respects curves, cuts, embankments, and undulations, upon which the road is now being operated should prove permanent as well as correct, the bringing the road-bed up to a condition of standard excellence, including the important item of ballasting, will be a simple and inexpensive matter.

The lack of standard and system which has been remarked upon in other respects is peculiarly noticeable in the matter of ties. The road is as a whole very well provided with them; indeed, not infrequently they exceed the regulation number of 2,640 to the mile, and are so close together that there does not seem to have been sufficient space left between them to enable the section-men to freely work the ballast. Little attention seems anywhere to have been given to the careful spacing of the ties, and if any rule in this respect was ever laid down, a rigid compliance with it on the part of the road-masters has obviously not been insisted upon. This is the more noticeable as the character of the soil and absence of heavy ballasting would seem to make a careful observance of some rule in the matter peculiarly desirable. It would, however, seem that great numbers of ties have from time to time been put in the track, with very little regard to their size, while none have been taken out until they were thoroughly rotted through. The spiking is not less slovenly, and there is thus an absence of symmetry and disregard of appearance about the track, when examined in detail, which is not suggestive of a first-class railroad.

It is in the character of its rails, however, that the Union Pacific is most deficient. Considering the large income of the company and the recent low price of steel, the economy of renewals in this respect has

been carried much too far. While, during the last six years, first-class roads in other parts of the country have wholly replaced their iron with steel, removing every defective rail from their tracks, the Union Pacific has thus renewed but 290 miles out of 1,036. This comparatively small portion of its track is fairly up to standard, but the remainder can hardly be ranked as even of the second class. In it are not seldom to be found sections of track where there are rails of different pattern and of varying lengths, with joints even or broken, as the case may be,—resting on chairs or spliced with plates,—on the ties, or suspended between the ties;—rails which have been cut and turned and handled, and which are low at both joints and crushed in the center. Nor, unfortunately, are these very exceptional. The rule is understood to be that no rails having service in them, of over 16 feet in length, are to be removed from the track, and during their inspection the directors not infrequently saw them of 12 feet in length and even less. That portions of the road can, under such circumstances, safely go into the winter must be due to the fortunate freedom of the soil from frost. It could not be done in the East.

In explanation of this very noticeable state of facts, it was suggested to the directors that the rails which have been referred to were a portion of the original iron of the road, which was of such a singular toughness and strength that, in spite of its battered appearance, it was still kept in the tracks for the simple reason that, even in its present condition, it was found to outlast new iron. It would hardly, however, be suggested that this original iron is, in its present lamentable state, superior to steel; and it is with steel that first-class roads are now equipped. The Union Pacific, moreover, as respects its iron, continues the practice, long since abandoned by solvent companies, of putting down in front of its stations the poorer rails taken up among those still having service left in them, upon the ground that, as the trains run at slow speed before the stations, this description of rails can be used there without danger. Judged by any standards now in use on the first-class roads of this country, no rail which is not safe to run over at speed, is thought safe to keep in a main track anywhere. Certainly the careful collection of such rails in the tracks before stations indicates an utter disregard of appearances and absence of pride which should not be found in those managing a great continental thoroughfare. The directors feel that in this respect the condition of the road is open to sharp criticism, and that they would be failing in duty if they refrained from expressing it.

In conclusion, their examination has led the directors to believe that the policy now pursued by the company in regard to the material condition of the property, while careful and sufficiently safe, is by no means liberal. The impression given to an inspector is that the principles of economy are very rigidly impressed by a distant board of direction on the local management. The percentage of operating expenses to gross earnings is very closely watched. However it might be if the road were completed and brought throughout up to a first-class standard, it is obvious that the percentage of operating expenses is now smaller than it should be; and the reason that it is smaller is made plainly apparent by any close inspection. The policy of the company in this respect has not been such as the country had a right to expect or the government to insist upon.

The relations of the Union Pacific with the public generally, with the community it was built to serve, with the country and its inhabitants

along its line, and with the connecting roads, remain to be considered. This subject is, however, one far more difficult to deal with than the mere material condition of the property. It is possible to go over the road, even without any great familiarity with it, and to report on the state of the permanent way, the stations and the rolling-stock, and to feel in so doing a reasonable assurance against any considerable error in judgment. It is far otherwise with a business policy. To pass with any weight of authority upon that, calls for an acquaintance with facts which cannot be speedily acquired, much less improvised. For it is to be borne in mind that the business policy of the Union Pacific necessarily affects, and is itself affected by the requirements and facilities of a region, sparsely inhabited, it is true, but more than equal in area to all the countries of Europe west of Russia. Not only is the road itself more than a thousand miles in length, but the form which its tariffs take is directly influenced by the course of traffic on the upper Missouri, over the Isthmus of Panama, and about Cape Horn. Besides being the great artery of commerce across the continent, it supplies the local needs of wholly separate communities, engaged in industries as varied as agriculture, the raising of cattle, and mining. Under these circumstances, it would be pure assumption in any body of men, with no better opportunities than the present directors have yet had, to pretend to speak absolutely on this subject. Certain impressions undoubtedly have been received, and a few conclusions reached, but what the directors say in this portion of their report, they say with hesitation, and subject to limitations almost sure to result from a larger and more intimate knowledge.

Upon one point, however, they are clear. As respects its business policy no less than as respects its material condition, the Union Pacific occupies a peculiar position. It is both a national and a continental thoroughfare, built in a large degree by contributions from the public purse. In view of these facts, those who own and control it have incurred a responsibility which they should cheerfully recognize, and which they should not be permitted to ignore. The policy of the company should be a public-spirited policy. The community has a right to expect that in its commercial relations strict business principles should be tempered with liberality. It would not seem, therefore, unreasonable to ask that the development of the country, and the easy and even economical exchange of traffic should be considered by those invested with the management, as well as the strict business view of the largest profit. In any event, it is clearly the mission of those representing the national government in the Union Pacific direction—if, indeed, they have any mission—to develop this principle of public responsibility, and to keep it continually in the minds of those more immediately intrusted with the management. Not that it is either expected or desired that the Union Pacific should be operated without regard to profit. On the contrary, the interest of the corporation and of the government, as its largest creditor, are in that respect the same. What is desired, and should be insisted upon, is obviously something of a wholly different character; it is that the business policy of the corporation should be large and liberal-minded, a policy looking not only to the immediate returns of the present month or year, but which gives full weight also to those remote results which may be made to follow the development of the country; above all, a policy which seeks, so far as circumstances will permit, to avoid all discriminations, and to deal reasonably and equitably both with other roads and with differently circumstanced individuals and communities.

Measured by this standard, it would be occasion for surprise if the course of the Union Pacific was not found open to much adverse criticism. It unquestionably is. This criticism, however, it may be stated in the outset, should not partake of the character of sweeping denunciation. There is, on the contrary, much to be said, both generally and in detail, in defense of the course which the company has recently pursued in the conduct of its business. All things considered, its tariffs, though high in comparison with those in use on some of the trunk lines of the East, are lower than the average, and in no respect, at once practical and material, appear to be extortionate. The rate on through traffic during the year 1877-'78 appears to have averaged 1.62 cents per ton per mile; while that on local traffic, exclusive of coal which the company carried on its own account, averaged 2.54 cents. Any inference as to the reasonableness or otherwise of these rates drawn from comparing them with similar averages reached from the statistics of more eastern roads would, however, be extremely fallacious, unless full allowance is made for the different conditions under which the business is done. A very high average rate on local business upon one road may, for instance, be a very low rate upon another. The whole question turns upon the cost of doing the business, and that again depends on its volume, the length of haul, and the frequency and expense of handling. As respects volume of local business the advantages would probably be with the roads of the East; but it would be immensely the other way as respects length of haul and cost of handling. So with through business. The average rate returned by the Union Pacific, if used for purposes of comparison, is merely deceptive; for it would naturally be inferred that it represents the amount charged the shipper by this company for the service, as the similar average in the case of the more eastern road represents the amount charged by it. The one is thus compared with the other, and an inference is drawn. In neither case, however, does the rate returned really represent the charge made. The charge was for the entire service, and represented transportation over a given number of miles. It is divided, however, among those performing the service, not in proportion to miles of carriage done by each, but upon an agreed arbitrary basis, the Union Pacific receiving more than its proportionate share. Thus, though the whole rate paid by the shipper may have been perfectly reasonable, and even low, considering the service, through the process of division it may be made to appear as an actually extortionate charge in the returns of the one road, and as a merely nominal charge in the returns of the other.

The conclusions of the directors as to the generally reasonable character of the Union Pacific tariffs are not therefore based upon the average rates reported by the company. The fact would seem to be that the commonly entertained idea as to the position this road occupies in respect to its local business is essentially erroneous. According to that idea, if the directors correctly understand it, the Union Pacific enjoys a monopoly; practically, from end to end of its line, it is free from competition and at liberty to regulate its system of charges as it sees fit. This, however, is in reality the case to a rather unusually small extent. It is true that the company is exposed at but few points only to the intense pressure of competition with which the railroads farther east are familiar, but almost nowhere is it wholly exempt from competition of some sort. For instance, in Eastern Nebraska it meets it from rival railroad lines. The cattle interest is almost the only one of which Western Nebraska admits, and cattle can always be driven from one competing line of railroad to another in search of better rates.

Cheyenne is a point of active railroad competition. To the north of Cheyenne are the Black Hills, and for the business of this region it is necessary for the railroad to compete with the steamboats of the Missouri River. Beyond Cheyenne, except for its coal-fields, of which it does, indeed, enjoy a practical and very valuable monopoly, the road runs through a desert region to its terminus at Ogden. From Ogden it supplies the Territory of Montana in competition with the Missouri steamboats, and the Territory of Utah in competition with the Central Pacific. Practically, therefore, in case of its coal-fields alone does the Union Pacific enjoy a real monopoly of any considerable value. At the few points on its line where it finds any business to speak of, it meets competition in some form; at the many points where it meets no competition it finds no business. This fact alone would prevent the adoption of extortionate rates.

Apart from all competition, however, such does not seem to have been its policy. In the adjustment of its tariffs it has evinced a spirit at once shrewd, business-like, and money-making; fully awake to all the advantages of geographical situation, and disposed to forego none of them, but rarely oppressive withal. As a rule, a careful regard seems to have been shown to what any particular branch of business could afford to pay; and this, rather than the cost of the service rendered, or any more remote advantages to be expected from it, would appear to have afforded the basis upon which rates were established. In pursuing this general policy the company has by no means disregarded local interests. On the contrary, it has not infrequently provoked the enmity of connecting lines in its efforts to protect and develop such interests. For these and other good and reasonable features in its policy the Union Pacific has not, as it seems to the directors, received the full degree of credit which is its due. As a whole, however, its business policy has neither been far-sighted nor liberal. It is, in fact, such a policy as might naturally be expected from a capable local management, anxious for good immediate results, but having no conception of any such broad and, perhaps, statesmanlike views as the directors have endeavored to suggest. Looked upon, however, simply as a feature in the management of a private enterprise, the object of which is to secure the largest immediate returns, at once safe and not unreasonable, upon its outstanding securities, the recent business policy of the Union Pacific is open to few criticisms.

Perhaps, however, the directors could best illustrate their meaning, and at the same time avoid any possible imputation of vagueness, through a few examples drawn directly from the recent tariffs of the company. Take, for instance, the following: During the last few years there has been a great increase in the production of wheat in the vicinity of Cheyenne and in Northern Colorado. This wheat finds a market in the East, as well as among the mountains. It can, however, afford to seek an eastern outlet only at the lowest possible rates of carriage, and those rates the company have to offer it or not get it at all. Recognizing these facts, the Union Pacific has made for this business the extremely low rate of 5 mills per ton per mile from Cheyenne to Omaha; and in so doing they have reasoned that it was sound policy to carry this wheat out even at these rates, or it might be even at a loss, in view of the indirect profit derived from it. For, it was argued, the prosperity of the farmers throughout that region is the prosperity of the road. If the company does carry their wheat to a market at a small loss it brings back their supplies of every description at a considerable profit, and this indirect return amply compensates any immediate sacrifice.

This is a liberal and far-sighted business policy, which, if systemat-

ically pursued after a careful and intelligent study of both the existing conditions and future possibilities of the country, would leave nothing to be desired. Even in this case, however, it may well be questioned whether the rate named resulted from anything but a careful calculation of what the business could afford to pay. Whether it did or not, however, the proceeding was exceptional, while an example of the policy more usually pursued is found in the case of coke carried into Utah.

Utah is essentially a mining region. One great obstacle in the way of its development as such is the want of any coal fit for coking. The importation of an abundant supply of coke for use in smelting operations is to the miner of Utah not less important than the cheap export of wheat is to the farmer of Colorado. It is, in fact, a raw material of prime importance. A liberal and far-sighted policy on the part of the Union Pacific would apparently study a means of furnishing this article of necessity at the lowest possible rate, while a profit would be counted on from the consequent traffic involved in supplying the wants of a large and active business community. While, however, as has been stated, the Union Pacific takes the wheat out from Colorado at a rate of but 5 mills per ton per mile, it charges 15 mills per ton per mile for carrying coke to Utah; although in the former case the haul is but 500 miles (Cheyenne to Omaha), while in the latter case it is 1,036 miles (Omaha to Salt Lake). It is true that the wheat is brought out on a generally descending, and the coke is carried in on a generally ascending, grade; this, however, would by no means account for the difference in rate, which is apparently fixed with a simple view to what the business is believed to be able to pay. The instance cited is that of Pittsburgh coke, which is now laid down in Salt Lake City at \$26 a ton, a reduction of \$7 from former prices. Of this \$26 no less than \$24.15 represents freight paid to the several carriers for transportation, of which the Union Pacific exacts for itself three-fifths, making no concession to the consumer.

Meanwhile a good coking coal is now found also in Colorado, and in this case the policy of the Union Pacific is even more pronounced. The Colorado coke destined for Ogden reaches the Union Pacific at Cheyenne, the same point where it receives the Colorado wheat destined for Omaha. The haul is in each case the same, 500 miles; but while on the wheat going out the tariff rate is 5 mills per ton per mile, on coke going in it is four times that amount, or 2 cents per ton per mile. There can be no doubt that either from Omaha or Cheyenne a tariff of 1 cent per ton per mile on coke to Utah would yield the Union Pacific a sufficient margin of profit. On the equally heavy mountain divisions of the Pennsylvania and Baltimore and Ohio roads that rate for much shorter hauls would be regarded as high. The business, by no means inconsiderable now, responds immediately by a large increase in volume to each reduction in rate. A reduction to 1 cent per ton per mile would mean a saving of \$5 per ton, or about three times its original cost at Pittsburgh, on all the coke used in the smelting works of Utah.

Turning now to the coal tariffs of the road, the corporation, as is well known, is a large miner from deposits on its own lands, as well as a carrier. Its mines are situated on the western half of its line, and the coal from them is carried west to Ogden and east to Omaha. From Rock Springs to Omaha, a distance of 830 miles, in one portion of which the heaviest adverse grades in the road have to be surmounted, the freight is about \$5.75 per ton, allowing \$1.25 as the cost of mining and 50 cents for profit, or a little less than 7 mills per ton per mile. At Omaha the Rock Springs coal comes in competition with that from Iowa, and the rate is thus fixed by competition. On the other hand, the distance

from Almy, the point of supply, west to Ogden is 80 miles, and the tariff rate is \$2.50 per ton, or a little more than 3 cents per ton per mile; the grades in this case being all descending. In other words, the company carries its coal 830 miles to Omaha, where it meets competition, at the rate of 7 mills per ton per mile; and it also carries it in the other direction 80 miles to Salt Lake, where it meets no competition, and charges for so doing 30 mills per ton per mile. It may further be mentioned that, owing to descending grades, a locomotive can haul more loaded cars from Almy to Ogden than it can drag back empty from Ogden to Almy.

As it is not the purpose of the directors at this time to examine these questions of rates exhaustively, but simply to refer to them as illustrating certain general features of business policy, the examples given would seem to suffice. At the risk, however, of entering too much into detail, a single other example may be referred to as showing the course pursued by the company in the familiar matter of charging, in case of competition, more for a shorter than for a longer carriage from the same point.

Arguments may be urged in extenuation of this practice where the competition is severe but temporary. There may be reasons against the complete disarrangement of a system of reasonable local rates merely because an unreasonably low rate to a single point is expedient for the moment. This happened on the Union Pacific during the last summer, when a violent competition over the Colorado business temporarily forced rates from Omaha to Cheyenne to a quarter part of the local rate then made from Omaha to Sidney, 100 miles east of Cheyenne. The directors do not here propose to discuss the question whether these arguments are entitled to consideration or otherwise under such circumstances as these. What was, however, in the case of Sidney a temporary exception to a rule, will be found at other points on the Union Pacific to be the rule itself. Take, for instance, Evanston as compared with Ogden. The latter point, as being the western terminus of the Union Pacific and the eastern terminus of the Central Pacific, is naturally a competing point—that is, the place can be supplied from either eastern or western distributing centers, from Chicago on one side, or from San Francisco on the other. Accordingly, in order not to lose the business, the Union Pacific is frequently compelled to make competition rates to Ogden, so that the tariff on many articles to that point is lower than it is to other points much nearer Omaha, of which Evanston is one. In such cases the company professes to give Evanston the benefit, as it is termed, of the competing rates—that is, in making the rate from Omaha to Evanston (954 miles) it charges the full through rate from Omaha to Ogden (1,036 miles), and then adds to it the local rate from Ogden back to Evanston (78 miles). In this way Evanston enjoys the benefit of competition by having its geographical distance from Omaha, as compared with Ogden, increased 156 miles, upon one-half of which the full competitive rate, and upon the other half of which the full local rates is charged.

This method of making a so-called competitive rate to local points is, of course, not peculiar to the Union Pacific. It is in use on many of the roads of the Western States, and is a fruitful source of complaint. It is one of those harsh outgrowths which seem to be inseparable from all uncontrolled railroad competition, and the remorseless length to which the abuse was at one time carried contributed more than any, or probably than all other causes combined, to the Granger agitation of 1871-'75. To whatever extent such discriminations may have been justified, how-

ever, if at all, under the extreme results to which more eastern roads were driven by the pressure of an unbearable competition, there would certainly seem to be no excuse whatever for them in the case of a road circumstanced as the Union Pacific now is. Such a policy of petty discrimination can hardly be deemed otherwise than wholly inconsistent with any high sense of public responsibility.

The instances which have hitherto been cited have been drawn wholly from the tariffs of the company on its local traffic. As is well known, however, this is by no means its most remunerative traffic. The Union Pacific is essentially a through line. Of this portion of its business, also, for reasons which will presently be alluded to in detail, it enjoys a comparatively undisturbed possession. In referring to its through business, however, it is necessary, in order to avoid drawing unfair inferences, to bear certain considerations clearly in mind. In the first place, though the profit derived from it by the Union Pacific is manifestly large, the total burden imposed upon the public is by no means proportionately heavy. The exceptional profits in great degree result from that system of arbitrary division which has already been referred to. To the shipper it is a matter of no consequence, provided he does not pay for the whole carriage of his goods more than is reasonable, whether the New York Central, or the Rock Island, or the Union Pacific gets more or less than its fair proportion of the whole amount paid. That is a question which concerns simply the various carriers; and, as a rule, they may safely be left to take care of themselves. Meanwhile these through continental rates are especially under the control of the Pacific roads; the Central making the East-bound, and the Union the West-bound. A noticeable illustration of the absence of that sense of high public responsibility in the management of a trust, which the directors have referred to, was during the last season furnished in connection with those West-bound rates.

In the month of July last, a sudden announcement was made that the tariffs on through freighting business over the Pacific roads had been altered, and that, while the classification of certain articles had been changed, the rates upon others had been advanced from 50 to 100 per cent. The reason of this movement, which naturally excited surprise as well as indignation among those affected by it, was not at first apparent. It was, however, soon learned. It was purely strategic. The company did not really propose to raise its tariff rates; on the contrary, it was ready to slightly reduce them; but it did propose to take full advantage of its position to secure as much as possible of the trans-continental business. As a first step toward this, it practically did away with its open tariff, by the very simple process referred to. Under the open tariff, at the old rates, the larger business firms dealing between the two coasts had a choice of routes—that by water and that by rail. They, in practice, availed themselves of this option by sending their coarser freights, or those in regard to which time in delivery was immaterial, by water, at the lower rates; while the more costly wares, or those requiring immediate delivery, were forwarded overland. The object of the Union Pacific was to put a stop to this practice. This they did by largely raising their freights, which put an effectual stop to shipments under the open tariff, while, at the same time, they offered to all the large firms which would contract to make their shipments wholly by land, special rates at a reduction even from those in force before the change. It was thus a distinct step backward, for it amounted to the abandonment of a published and open tariff in favor of a system of private special contracts.

This move was, therefore, not only one of great importance, but it was

open to serious objections. It was made, not by a petty local road, nor by a competing trunk line, but by a great, subsidized, continental thoroughfare. As such, it might naturally be inferred that it was made only after ample consideration, and with the authority of the full board of directors. It is, however, a fact singularly illustrative of the absence of that sense of public responsibility in which the policy of the Union Pacific is now shaped, that this measure, which practically put in irons the trans-continental business of the country, was devised by two freight agents, was never, before being publicly announced, submitted for consideration even to the executive committee of the board of directors, much less to the full board, and was finally put in force to the utter surprise of the public, on the verbal authority, so far as can be ascertained, of the president and a single director.

It is unnecessary to comment on such a method of corporate management. It speaks for itself. Meanwhile, so far as the measure is concerned, the objections to it are apparent. The through business over the Union Pacific is mainly done by large houses. This is natural enough, for such houses can, of course, do it most cheaply. The measure under discussion, however, made it impossible that this business should be done by any but the large houses. They have special contracts covering it at less than the published tariff rates. More than this, it locks up, in secret, transactions which more than all others should be public. The special contracts may be equal as between shippers, or they may not. The directors have every reason to believe that they are, but they none the less are lacking in that element of publicity which in such matters will always remain the one real safeguard against discrimination.

The passenger movement over the road is necessarily light, and must not be judged by the standards in use at the East. The people dwelling along the line have small occasion to travel to and fro over it, and through passengers and immigrants are provided with a fair train service at not unreasonable rates. The local fares run to as high a point as 9 cents per mile on some portions of the mountain divisions, which, of course, would be a good cause of complaint if there was any travel to be affected by it. The average local fare is about 3.5 cents. The exceptionally heavy local fare charged between Omaha and Council Bluffs will be more particularly referred to in another part of this report. On through passengers the average fare is 3.13 cents per mile; on through and local both, including immigrants, it is 3.33 cents. These rates would seem to be about 50 per cent. higher than those charged in Massachusetts, for instance; and, taking into consideration the nature of the country and the character and industrial pursuits of the population, they are not on the face of them unreasonable. Indeed, they are not so high as would naturally be expected. What other and different results might be made to appear from a more critical analysis on the spot of the actual working of the tariffs the directors are unable to say. They have had no opportunity to make such an analysis of them.

Before passing from the consideration of the policy pursued by the Union Pacific in its relations with the general business public, there are certain matters touching the course which Congress has adopted towards that company which it seems necessary to refer to. From the well-known circumstances connected with the construction of the road, as well as from the fact that the United States Government is its largest creditor, Congress has always been in a position to exercise a great, if not a controlling influence even, over it. It might, through a conservative and intelligent public supervision, have developed the idea of responsibility in the management, and compelled the adoption of such a

liberal and far-sighted policy as the directors have endeavored to suggest. In doing so, it would naturally have looked to the increased benefits to be derived from the more rapid development of the country, to reimburse the government for its outlays on the enterprise, rather than to any immediate cash repayments out of profits to be derived from a pure money-making system of tariff charges based on hard business principles. It seems fairly questionable whether by its recent legislation Congress has not committed itself in a certain degree to another and a less liberal course. By the act of May 7, 1878, commonly known as the Pacific Railroad funding bill, the government would seem to have given its formal approval to the present business policies of both those corporations, by insisting on having a share of their results. In the report which accompanied that act (Senate No. 111) the committee very distinctly rest it on the large net earnings of the road to which it applies, and express the opinion that those earnings "will be largely increased in the future," and, again, that they "in the future will not be less than they were in the five years" 1872-'76. Those net earnings in part were, however, and if maintained they will in the future continue to be, the direct result of that policy on the part of those managing the Union Pacific which the directors in this report have felt it their duty to criticise. The directors have already intimated their belief that the percentage of net earnings (58 per cent.) returned by the Union Pacific during the last three years is considerably larger than it should have been. The adoption by the company of a liberal policy as respects renewals and local business development would unquestionably for some years to come decrease that percentage. The government should, however, for obvious reasons exert all its influence to that end. Meanwhile, the legislation referred to would seem to sanction that wholly different policy in the unnaturally large results of which it is proposed to secure its fair share to the National Treasury. The government becomes, in short, one of the principal beneficiaries from a system of railroad management which is, to say the least, in some respects unjust, in many respects harsh, and in nearly all respects illiberal to its own citizens. While the government occupies this position, it would seem difficult for those who represent it more immediately in the direction of the company to exercise any considerable influence in favor of a policy more liberal but less immediately profitable.

Passing to the relations of the Union Pacific with other members of the general railroad system of the country, they would seem to be of three different descriptions—its relations with connecting roads, with competing lines, and with feeding lines. The Central Pacific is obviously the most important of the roads connecting with it. The relations of these two companies seem always to have been sufficiently harmonious. They compete with each other only for the Utah business; and, as respects that, they have agreed upon a tariff of rates which they deem not unreasonable, and, subject to this tariff, business is allowed to take its own course. As the dealings of Utah have hitherto been mainly with the East, the bulk of its business has come to the Union Pacific. How long this will continue to be the case may admit of growing doubt. Already, under the existing tariff, Australian coke is being brought to Salt Lake in competition with that from Pennsylvania. London would also appear to be the great market for the productions of Utah. In time, therefore, it would seem not improbable that those products will seek the seaboard by a local transit of 900 miles to San Francisco, rather than by one of 2,500 miles to New York. Should a tendency in this direction

develop itself, it will probably materially affect the relations of the two Pacific roads.

In its relations with those more eastern roads which, connecting with it at Omaha, complete the transcontinental route, the policy of the Union Pacific has been single and consistent. Those managing its affairs have uniformly claimed, and have as a whole succeeded in a marked degree in securing, every advantage in the division of through rates which the circumstances or fortunate geographical position of the road could warrant. The result has been a great financial success, and speaks highly for the business capacity of the company's agents.

The relations of the Kansas Pacific and the Burlington and Missouri River, in Nebraska, with the Union Pacific, as connecting roads, have for years engaged the attention both of Congress and of the Department of the Interior. As they have repeatedly been investigated and reported upon, their further discussion here does not seem necessary. It is sufficient to say that, so far as the Burlington and Missouri River Road is concerned, the two companies have never been able to agree upon a proper construction of the law or upon any terms for the general exchange of business. The two roads are, accordingly, operated without any regard to each other. No through rates on merchandise seeking to pass from one to the other are made; and any person wishing to use the two lines as a joint route, is delivered by one at Kearney at the local fare, and is there received and forwarded by the other on the same terms. A similar condition of affairs prevailed until the last spring between the Union Pacific and the Kansas Pacific. A contract was, however, then made looking to a business consolidation of these two corporations. A copy of this contract is herewith submitted. It will be observed that, so far as competitive traffic is concerned, it is of the closest character and widest scope; it effectually disposes of it. This arrangement, for reasons which it is unnecessary to discuss, was not consummated, and the control of the western portion of the Kansas Pacific is now in litigation. The two roads are, meanwhile, so far as any interchange of traffic is concerned, as far apart as ever.

While it is very undesirable that this state of affairs should continue, it may well be questioned whether the time has yet come for a consolidation of the nature just referred to. It would result in the complete disappearance of competition. For this, so far as the directors are competent to form any opinion, the region west of the Missouri is not yet ready. The roads are few in number, and there are no natural channels of communication. The rates currently charged are high, and public opinion, while restive and uneasy as respects railroad corporations, is uninformed as to the proper remedies through which relief must be sought. No governmental machinery exists to secure publicity and the free discussion of abuses; nor, indeed, has the first well-considered step been taken as yet to secure that intelligent public supervision over railroad management which can alone supply the place of active and even ruinous competition. Until some such system can at least be partially matured, such a combination as that of June last must be regarded as against public policy. Had it been carried into effect, it would inevitably have resulted in some arrangement through which the Burlington and Missouri in Nebraska would have received a portion of the results of the through business satisfactory to its management. Thereafter the people and business interests of the vast territory served by the combination would have been wholly at its mercy. It only remains to add that the agreement of June 1 was both executed and had broken down be-

fore the present government directors had been assigned to their positions on the committees of the board.

Though the time for a practical business consolidation of the Union Pacific with the branch lines connecting with it has not yet come; yet every possible consideration of public interest demands that those roads should be operated with a certain degree of harmony. They should not, at least, be permitted to wholly ignore each other, as they now do, except, perhaps, in the way of hostilities. Some provision should be made at an early day to secure over them the unrestricted movement of persons and property at reasonable rates. This, as is plainly apparent throughout the several charters, it was the original intention of Congress to secure. Meanwhile, it is one of the curious practical results of railroad competition that the only roads in that vicinity with which the Union Pacific hold no business relations at all are the branch lines west of the Missouri with whose tracks it has a direct connection, and which were especially chartered to connect with it.

The directors do not propose to further discuss a subject already so fully considered. Meanwhile, it may not be out of place for them to remark that the difficulty which surrounds it would appear to have been needlessly, unless it was intentionally, magnified. This, to a certain degree, may be due to the use of technical terms which are not strictly applicable, and the meaning of which is not fully understood. The question involved in this controversy is not, as is commonly supposed, one of prorating, as it is called. It is, on the contrary, simply a question of the interchange of business between connecting roads on reasonable terms. The practice of prorating is merely one method of arriving at a division of receipts from a common business. It is a method, also, which, so far as the directors are informed, has never been adopted in the legislation of any country; it is peculiar to the voluntary dealings of the corporations among themselves. The measure of reasonable rates at which business shall be exchanged between connecting roads is of wholly a different character. The machinery by which it is established is a familiar feature in railroad legislation, as precedents for it exist in the laws of many foreign countries, as well as in those of several States of the Union. It amounts simply to a compulsory reference of the points in dispute, on the application of either party, to an impartial board of arbitrators, whose decision as to what is reasonable, under all the circumstances of the case, is final and binding on all concerned for a fixed period of time. If in this case the companies are unable to agree, the directors see no reason why a satisfactorily compulsory settlement in the interest of the public should not be reached in this way.

The conditions of the Union Pacific as respects competitive business generally are very simple when compared with those under which railroads are operated in the more eastern sections of the country. It is forced to compete with the Panama route and the Pacific Mail Steamship Company for a portion of its through business; with the Central Pacific for the Utah business; with the Missouri River for the Montana business; with the Denver roads for the Colorado business, and with the Burlington and Missouri River, in Nebraska, for a portion of the Nebraska business. The competition with the Panama route has hitherto, except at brief intervals, been regulated by contract. The Pacific Mail Company has received \$5 on account of each through passenger by the overland route, and the Pacific roads have also guaranteed it freight money to the amount of \$42,000 per month. This arrangement terminates during the present month. It is understood, however, that it will be renewed on terms somewhat more favorable to the steamship com-

pany, though not essentially different. It is in the nature of a "pool." Under it all active competition between the two routes ceases, and rates of fare and freight are sustained. The understanding between the Union Pacific and the Central Pacific roads, as respects the Utah business, has already been referred to. The only competition, then, would seem to be that between the eastern and western points of distribution. The competition with the Missouri River lines for the Montana business is real, but not severe. It is met in the usual way. Through rates are carefully reduced and graded, irrespective of distance, so that the competitive points may be reached and held. During a portion of the present year the competition for the Denver business was both real and severe. The rates from Chicago to that point were forced so low that the Union Pacific carried merchandise from Omaha to Cheyenne on the way to Denver for 1 mill per ton per mile, while the usual local rate between those points on the goods of the same description was from 12 to 18 times that amount. These rates were in force, however, only about six weeks, when they resulted, as such struggles always must result, in an agreement of the competing lines and practical division of the business.

During the last few years, however, and under the management of those who now control it, the policy of the Union Pacific has been to protect itself from competition in another way. It has sought to occupy the territory adjacent to its line in advance, through the construction of a system of branch roads or feeders. This seems in every respect a wise policy, and one which it is for the interest of the government to encourage. Through it not only are much-needed railroad facilities furnished, but the net earnings of the company being thus applied, the permanent value of the property as a security for the advances made to the corporation by the government is largely enhanced. There are now five of these branch lines in which the Union Pacific is interested, either directly or indirectly, to the extent of entire possession or in part; these are the Omaha and Republican Valley, the Colorado Central, the Utah Central, the Utah Southern, and the Utah and Northern. It is not deemed necessary to encumber this report with any details concerning these branch lines, either as touching their length or their business and financial relations with the Union Pacific. If desired by the department, these can most readily be obtained through the office of the government auditors. Meanwhile it, of course, need not be said that these branch lines, or the securities which represent them in so far as they are the property of the Union Pacific Railroad Company, are not covered by the government mortgages, and contribute to the security of those mortgages only in so far as these branches are valuable feeders of the main line, and as such practically inseparable from it.

The question as to whether the legal terminus of the Union Pacific road was upon the west or the east side of the Missouri River—in Omaha or in Council Bluffs—has heretofore excited much public interest, and engaged the attention of the government directors. This question was, some years ago, finally decided by the Supreme Court in favor of the east side of the river. (*Union Pacific Railroad Company vs. Hall*, 1 Otto, 343.) As the proceedings in this matter are of public record, and as such are accessible to the government, no further reference to it would seem to be here necessary. In accordance with this decision, the bridge across the Missouri River has become an integral portion of the through line, and the Union Pacific trains now run to the union depot at Council Bluffs. The connection with the various roads east of the river is there made.

This action of the courts would seem finally to dispose of the question

of the Omaha bridge charges, which have for years been the occasion of much public discussion, especially at Omaha. It is, however, still locally urged that the bridge allowances in the division of receipts from through business made to the Union Pacific, and the rates charged for the carriage of persons and merchandise between Council Bluffs and Omaha are excessive, if not illegal; or, as it is usually stated, they constitute an onerous and special tax, which the corporation has no right to levy, of 50 cents a head on every person and \$1 on every ton of merchandise which crosses the Missouri on the Union Pacific track. So far as these complaints relate to the legality of these allowances and charges, the directors do not feel it incumbent upon them to either form or express an opinion. That question the courts must decide. So far as their propriety or reasonableness is concerned, the matter is one clearly within the province of the board. As respects through passengers or freight, the allegations referred to would not appear to be sustained by facts. It is true that, in the division of receipts from through business among the connecting roads, an allowance for bridge charges is made to the Union Pacific. But it does not follow that the total amount paid either by the passenger or upon the goods crossing the river is at all increased thereby. It would seem, on the contrary, to be merely another question arising out of those methods of division already referred to. The total through rate, whether fare or freight, is a fixed sum. Before dividing this sum, a certain amount is deducted and allowed to the Union Pacific on account of the Omaha bridge. It is a mistake to suppose that if this amount were not so deducted and allowed, the through rate would be diminished by an equal sum. No such reduction has usually been made in other and similar cases elsewhere, or would probably be made in this case; but, the total amount remaining the same, it is not impossible it might be divided in a slightly different ratio. In other words, the Omaha bridge allowance is a matter between the roads, in no way necessarily affecting the public; and, as a rule, the roads have been found quite capable of taking care of their own interests. In this case it is not proposed that the government should establish a fixed through rate, and it is not apparent why it should concern itself in the division made by the roads of the rate fixed by them.

The same fares and freights are, however, charged on the local travel and traffic between Omaha and Council Bluffs as upon the through; that is, 50 cents for each person, and \$10 per car, or 5 cents per hundred, on merchandise. As respects the last, judged by all usage, the amount named cannot be considered unreasonable as a terminal charge in a case involving such an outlay for facilities as those at Omaha. So far as the directors know, it is customary for railroads under such circumstances to demand and receive terminals, and 5 cents per hundred is not an unusual one. The case is different as respects local passengers. For them it is neither customary nor in itself reasonable to charge heavy local terminals. They handle themselves, and share the benefits of stations, bridges, &c., only in common with all other passengers. For instance, many railroads in this country terminating in great cities have far larger amounts permanently invested in terminal facilities than the Union Pacific has invested between Omaha and Council Bluffs, including those two places. For the carriage of merchandise to points on the line of such roads three miles from their termini, those roads charge and receive probably at least 5 cents a hundred. At any rate, such a charge would not be considered unreasonable. Not one of those roads, or indeed any road in the country, would think of charging a local fare of 50 cents on passengers between the same points. If they

did, it would simply result in their passengers taking other means of conveyance. In such cases, 10 cents is the usual and reasonable fare, and the directors are unable to see any reason why this should not be adopted by the Union Pacific as the local passenger rate across the bridge.

But one further subject remains to be considered. The interest of the Union Pacific Company in such portions of its land-grant as still remain unsold has, under a recent decision of the Department of Interior, become a subject of litigation. It is no part of the duty of the government directors to discuss the merits of that question. However this litigation may result, there are certain questions connected with the Union Pacific land-grant which apparently will not be affected by it, but which, from every point of view, would seem to call for some additional legislation. As is now generally well known, the land covered by the Union Pacific grant varies greatly in character. Scarcely one-quarter part of it can be classed as arable, while more than half the remainder—some 4,500,000 acres—is supposed to be available for grazing purposes. The rest—3,000,000 acres—comes under the general denomination of waste-lands, the value of which, apart from mineral deposits, depends upon climatic changes in the more or less remote future. To be of any real service these lands not arable must be held in large tracts as cattle-ranges, vast extents of which are dependent for value on the control of a water-front. The system of alternate sections in which this land is now held under the existing land-grant legislation effectually puts a stop to a disposal of it. Alternate sections only can be conveyed, and the control of a water-course in one section may imply a practical enjoyment without ownership of several adjoining sections. Under these circumstances the expediency of some legislation affecting the grazing and waste lands west of a point at or near North Platte would seem to be obvious. The directors are aware that this whole subject was discussed in the annual report of the Secretary of the Interior for the year ending June 30, 1877 (p. 21), and they refer to it now simply because nothing has yet been done to carry out the recommendations then made. A personal examination on the spot shows that the matter is one of consequence. The mistake of applying legislation intended for arable lands to grazing or desert lands should be rectified, and rectified in the manner already suggested in the report referred to. An exchange should be made, the government ceding to the railroad company all the sections on one side of the road, and receiving from it in lieu thereof all the sections on the other side of it. In this way the interests of both parties would be subserved, while title could be given to tracts of the necessary size. It is unnecessary to discuss at this time the details of the proposed legislation. The necessary provision would, of course, be made in it to protect all private rights heretofore acquired. As to its general expediency there would, however, seem little room for question.

CHARLES F. ADAMS, JR.
DANIEL CHADWICK.
GEORGE B. SMYTH.
RALPH P. BUCKLAND.
CHARLES C. HOUSEL.

Hon. CARL SCHURZ,
Secretary of the Interior, Washington.

Petition.

In the circuit court of the United States for the district of Kansas.

ADOLPHUS MEIER AND JOHN A. STEWART, complainants,	}
<i>vs.</i>	
THE KANSAS PACIFIC RAILWAY COMPANY AND OTHERS, defendants.	

To the honorable the judges of the circuit court of the United States, sitting in and for the district of Kansas:

Your petitioners, the complainants herein, respectfully show unto this honorable court:

I. That since the bringing of this suit, it has resulted that the operation of the railway of the defendant, the Kansas Pacific Railway Company, by the receivers herein, has been attended with great expense, and that thus far it has been found impracticable to operate the same in conformity with the duty of said defendant to the public and the government, pursuant to the act of Congress approved July 1, 1862, and the various acts amendatory thereof, for the reason that it did not appear to the Union Pacific Railroad Company to be for its best interest to operate its road, over and upon which all through or joint traffic of the defendant, the Kansas Pacific Railway Company's road, must of necessity go, in harmony with it.

II. That for the purpose of complying with the public duty of the defendant, the Kansas Pacific Railway Company, to the public and the government, of diminishing, so far as possible, the operating expenses of the defendant, the Kansas Pacific Railway Company, and of securing to the *cestuis que trust* of complainants the payment of the principal and interest of the obligations of the defendant, the Kansas Pacific Railway Company, to such *cestuis que trust* in a satisfactory manner, all of which said objects are dependent upon, as your petitioners are informed and verily believe, the harmonious operation of the road of the defendant, the Kansas Pacific Railway Company and the road of the Union Pacific Railroad Company, and that with a view to secure such harmonious operation, a proposed traffic agreement or running arrangement between the Union Pacific Railroad Company, the Colorado Central Railroad Company, the Kansas Pacific Railway Company and its receivers, has been prepared, and preliminarily agreed on by the representatives of the parties thereto, a copy of which is hereto annexed.

III. That your petitioners are informed and verily believe that it is for the best interests of your petitioners, and of all concerned, that such traffic agreement or running arrangement should be made and entered into by the proposed parties thereto, provided the rights of your petitioners and the other parties to this suit can be protected and secured in such manner and by such order of this honorable court as to the court shall seem just and proper.

Wherefore, your petitioners pray that if the proposed traffic contract and the proposed agreement shall meet with the approval of this honorable court, a proper order protecting and securing the rights of your petitioners and all others, parties hereto, may be entered, authorizing the receivers herein to enter into, put in operation and carry out the proposed traffic contract.

J. A. STEWART and
A. MEIER,
By J. P. USHER,
Their Solicitor.

At chambers of the circuit court of the United States for the district of Kansas.

ADOLPHUS MEIER AND JOHN A. STEWART,	}
complainants,	
<i>vs.</i>	
THE KANSAS PACIFIC RAILWAY COMPANY AND	}
others, defendants.	

Upon reading and filing the annexed petition, together with a proposed contract, a copy of which is hereto annexed, upon all the pleadings and proceedings herein, and after hearing J. P. Usher, esq., of counsel to complainants, it is ordered that Henry Villard and Carlos S. Greeley, as receivers herein, be, and they are hereby, authorized and empowered to make and execute the proposed contract, of which a copy is hereto annexed, and to operate and manage the railroad of the Kansas Pacific Railway Company in conformity with the terms and provisions of said proposed contract until the further order of this court.

C. G. FOSTER, *Judge.*

(Endorsed :) No. 1894. Adolphus Meier and John A. Stewart vs. The Kansas Pacific Railway Company et al. Petition of complainant and order thereon. Filed June 13th, 1878. A. S. Thomas, clerk, by J. N. Strickler, deputy.

UNITED STATES OF AMERICA,
District of Kansas, ss :

I, A. S. Thomas, clerk of the circuit court of the United States of America for the district of Kansas, do hereby certify the foregoing to be a true, full, and perfect copy of the petition of complainant and order thereon, filed June 13th, 1878, in the suit of Adolphus Meier et al. vs. The Kansas Pacific Railway Company et al., No. 1894, in said court.

In testimony whereof I have hereunto set my hand and affixed the seal of said court, at my office in Topeka, in said district of Kansas, this 15th day of June, A. D. 1878.

[SEAL.]

A. S. THOMAS, *Clerk,*
By J. N. STRICKLER, *Deputy.*

This agreement, executed in quadruplicate, between the Union Pacific Railroad Company, party of the first part, the Colorado Central Railroad Company, party of the second part, the Kansas Pacific Railway Company, and Henry Villard and Carlos S. Greeley, as receivers of the Kansas Pacific Railway Company, party of the third part, witnesseth:

That it is agreed between the parties hereto as follows:

First. That the railroads of the parties hereto shall, under the general direction of the Union Pacific Railroad Company, be managed, operated, and controlled as one property.

Second. That to this end all the tolls, incomes, rents, issues, and profits, arising from the freight, passenger, and all other traffic of, over, or from the said railroads (including the existing branches of the Kansas Pacific Railway), hereafter referred to as gross earnings of the parties hereto, including the bridge of the party of the first part over the Missouri River, between Omaha, in Nebraska, and Council Bluffs, in Iowa, shall constitute a common fund or pool.

Third. That gross earnings, contributed by the parties hereto, shall be apportioned, divided, and remitted monthly to the proper officers of the respective parties hereto, as follows, namely:

To the party of the first part, for its main line.....	.72858 per cent.
To the party of the first part for its Omaha bridge.....	.02776 " "
To the party of the second part.....	.04673 " "
To the party of the third part	.19693 " "

These percentages having been arrived at by mutual agreement, the earnings of the properties of the parties hereto for the preceding year having been treated as the basis of this apportionment, the said earnings for the preceding year having been agreed to, have been as follows, viz:

Of the party of the first part for its main line (twelve millions four hundred and seventy-three thousand two hundred and three dollars).....	\$12,473,203
Of the party of the first part, for its Omaha bridge (four hundred and seventy-five thousand two hundred and seventy-three dollars).....	475,273
Of the party of the second part (eight hundred thousand dollars)	800,000
Of the party of the third part (three million three hundred and seventy-one thousand three hundred and one dollars)	3,371,301
Aggregate gross earnings for preceding year.....	\$17,119,777

Provided, however, that if the contributions of either of the parties hereto for its gross earnings, for any month, shall be in excess of its distributive share of the total gross earnings, upon the basis of this article, that there shall be retained by such party out of the aggregate gross earnings for such month, in addition to the distributive share allowed to it out of such gross earnings, the sum of fifty per cent. of such excess of freight earnings, such sum to be allowed to such party as a compensation for the cost of conducting the transportation of freight by it, but not to be allowed for the transportation of passengers.

Fourth. That within thirty days after the expiration of the first year after the execution of this agreement, and within thirty days after the expiration of each succeeding year of the period covered by this agreement, a readjustment of the above-named percentages shall be made upon the application of either of the parties hereto,

if they do not otherwise agree, in the following manner: The party of the first part shall nominate two disinterested experts, one of whom shall be charged with the duty of representing and acting in the interest of the Omaha bridge, the other of whom shall be charged with the duty of representing and acting in the interest of the main line of the party of the first part, and the parties of the second and third part shall each nominate a disinterested expert, each of whom shall be charged with the duty of representing and acting in the interest of the second and third parties, respectively, and if the experts so nominated shall unanimously agree upon a decision of the matters and questions submitted for their determination, such decision shall be final for the succeeding year; but if they shall not agree upon a unanimous decision, said experts shall agree upon a fifth expert, and a decision of a majority of said five experts upon the matters and questions submitted for their determination shall be final for the succeeding year; and it shall be the duty of such experts, in considering the matters and questions submitted for their determination, and in forming their decision thereon, to give careful and due regard to the natural and legitimate growth of local freight and passenger traffic of the railroads of the parties hereto, that in determining the percentages of the respective parties hereto, the railroad of each of the parties hereto shall receive due allowance for earnings from freight or passenger traffic naturally belonging to said railroad, respectively; and it shall also be the duty of such experts to give full force and effect to the spirit and intention of this agreement, which is hereby declared to be to operate the railroads of the parties hereto as one property and in such manner as to produce and to assure the greatest financial benefits to them as a united interest.

Fifth. That the accounts of gross receipts of all freight, passenger, and other traffic of the railroads of the parties hereto shall be kept by the proper officers thereof, and all of said receipts shall be remitted to the joint treasurer of said companies at Boston under such rules and regulations as the managers shall direct.

Sixth. That each of the parties hereto, when it can consistently be done without especial difficulty or injury to itself, will, if required, accommodate either of the other parties hereto with materials and supplies used in operating said lines of railroads at the same rates charged to itself, by whom the same may be furnished, and that the rate of transportation of said materials and supplies shall be one cent per ton per mile.

Seventh. That this agreement shall continue operative and controlling upon the parties hereto for fifty years from the date of its inception, which last-named date shall be within thirty days from the making hereof.

Eighth. That this agreement is subject to the ratification of the United States circuit court for the district of Kansas, in the suit of A. Meier et al. vs. The Kansas Pacific Railway Company et al.

In witness whereof the parties hereto have caused the same to be executed by their executive officers, this first day of June, one thousand eight hundred and seventy-eight, the receivers signing the same with their own proper hands.

THE UNION PACIFIC RAILROAD COMPANY,
By SIDNEY DILLON, *President*.
KANSAS PACIFIC RAILWAY COMPANY,
By ROBERT E. CARR, *Pt.*
COLORADO CENTRAL RAILROAD COMPANY.
W. A. H. LOVELAND, *Prest.*
Per J. P. USHER.

Witness:

H. H. CLARK.

C. S. GREELEY, *Receiver*.
HENRY VILLARD, *Receiver*.

39.

The Western Union Telegraph Company. Dated Pine Bluffs, Neb., 11, 1878. Received at Leavenworth, Kas., June 11, 2.20 p. m.

To Hon. J. P. USHER:

Executive Committee of Colorado Central have ratified the pooling contract, and I have signed the copies here. You are authorized to sign the Colorado Central contract in your possession as attorney in fact. Answer if this is satisfactory.

W. A. H. LOVELAND,
Prest. C. C. R. R.

43 D. H., via Om.

(Endorsed:) No. 1894. The Union Pacific Railroad Company with the Kansas Pacific Railway Company and others. Agreement. Dated June 1st, 1878. Filed June 13th, 1878. A. S. Thomas, clerk, by J. N. Strickler, deputy.

UNITED STATES OF AMERICA,

District of Kansas, ss :

I, A. S. Thomas, clerk of the circuit court of the United States of America, for the district of Kansas, do hereby certify the foregoing to be a true, full, and perfect copy of the agreement between the Union Pacific Railroad Company and the Kansas Pacific Railway Company and others, in the suit of Adolphus Meier et al. *vs.* The Kansas Pacific Railway Company et al., No. 1894, in said court.

In testimony whereof I have hereunto set my hand and affixed the seal of said court, at my office in Topeka, in said district of Kansas, this 14th day of June, A. D. 1878.

[SEAL.]

A. S. THOMAS, *Clerk,*By J. N. STRICKLER, *Deputy.*

COLUMBIA INSTITUTION FOR THE DEAF AND DUMB.

OFFICERS OF THE INSTITUTION.

Patron.—RUTHERFORD B. HAYES, President of the United States.
President.—EDWARD M. GALLAUDET, Ph. D., LL. D.
Secretary.—WILLIAM STICKNEY, Esq.
Treasurer.—GEORGE W. RIGGS, Esq.

Directors.—HON. GEORGE F. EDMUNDS, Senator from Vt.; HON. HENRY L. DAWES, of Mass.; HON. JULIAN HARTRIDGE, M. C., from Ga.; HON. WILLIAM CLAFLIN, M. C., from Mass.; HON. WILLIAM E. NIBLACK, of Ind.; REV. BYRON SUNDERLAND, D. D.; JAMES C. McGUIRE, Esq.; HON. HENRY D. COOKE.

COLLEGE FACULTY.

President and Professor of Moral and Political Science.—EDWARD M. GALLAUDET, Ph. D., LL. D.
Professor of Mental Science and English Philology.—SAMUEL PORTER, M. A.
Professor of History and Ancient Languages.—EDWARD A. FAY, M. A.
Professor of Modern Languages.— — — — —.*

Professor of Natural Science.—REV. JOHN W. CHICKERING, JR., M. A.
Professor of Mathematics and Chemistry.—JOSEPH C. GORDON, M. A.
Assistant Professor of History and English.—J. BURTON HOTCHKISS, M. A.
Assistant Professor of Mathematics and Latin.—AMOS G. DRAPER, M. A.
Lecturer on Natural History.—REV. WILLIAM W. TURNER, Ph. D.

FACULTY OF THE PRIMARY DEPARTMENT.

President.—EDWARD M. GALLAUDET, Ph. D., LL. D.
Instructors.—JAMES DENISON, M. A., Principal; MELVILLE BALLARD, M. S.; WILBUR NORRIS SPARROW, B. A.

Instructor in Articulation.—MARY T. G. GORDON.

DOMESTIC DEPARTMENT.

Supervisor.—JOHN B. WIGHT.
Attending Physician.—N. S. LINCOLN, M. D.
Matron.—Miss ANNA A. PRATT.

Assistant Matron.—Miss MARGARET ALLEN.
Master of Shop.—ALMON BRYANT.

*The duties of this professorship are for the present discharged by the professor of history and ancient languages.

TWENTY-FIRST ANNUAL REPORT OF THE COLUMBIA INSTITUTION FOR THE DEAF AND DUMB.

COLUMBIA INSTITUTION FOR THE DEAF AND DUMB,
 KENDALL GREEN, NEAR WASHINGTON, D. C.,
 November 1, 1878.

SIR: In compliance with the acts of Congress making provision for the support of this institution, we have the honor to report its progress during the year ending June 30, 1878.

NUMBER OF PUPILS.

The pupils remaining in the institution on the 1st day of July, 1877, numbered...	81
Admitted during the year.....	15
Since admitted.....	21
Total	117

Under instruction since July 1, 1877: males, 103; females, 14. Of these, 66 have been in the collegiate department, representing twenty-five States and the Federal District, and 51 in the primary department. A list of the names of the pupils connected with the institution since July 1, 1877, will be found appended to this report.

PROMOTION OF OFFICERS.

Mr. John. Burton Hotchkiss, a graduate of our college, B. A., 1869, M. A., 1874, who has filled a position in our college faculty as tutor in history and English since 1869, was promoted to an assistant professorship last October. At the same time the board of directors promoted to the same rank Mr. Amos G. Draper, also a graduate of our college, B. A., 1872, M. A., 1876, who has filled a position in our college faculty as tutor in mathematics and Latin since 1872.

Miss Mary T. G. Gordon, who has been for many years a faithful and successful teacher in our primary department, has devoted herself during the summer vacation just passed to the study of Bell's system of visible speech, under a competent instructor, and is now giving all her time to the teaching of articulation and lip-reading to pupils in the primary department. The results of her efforts in this interesting department of deaf-mute instruction will be fully stated in our next report.

Mr. Wilbur Norris Sparrow, a graduate of our college in 1877, has been engaged for one year as an instructor in the primary department, and has assumed the duties hitherto discharged by Miss Gordon.

No other changes have occurred among our officers during the year, and all have discharged their several duties in a manner deserving of hearty commendation.

HEALTH OF THE INSTITUTION.

We are permitted to record another year of exemption from sickness of any serious nature, with a single exception.

Death of James M. Cosgrove.—In April last Mr. Cosgrove, of Minne-

sota, a member of the junior class of our college, was seized with what at first seemed to be an attack of ordinary neuralgia in the head. His illness, however, soon took a more serious form, and after only three days' duration resulted fatally. So unexpected was the death of the patient that a post-mortem examination was made, which revealed the presence of an abscess at the base of the brain.

Death of Julius C. Dargan.—On the 30th of May last, being Decoration Day, and consequently a holiday, Mr. Dargan, of South Carolina, pursuing a select course of study in the college, made a visit to Mount Vernon. The day being quite warm, he went a short distance below the landing and took a bath in the river. He was seen by some fishermen to go out of the water and then return for another swim. After being in the water for a few moments this second time, he threw up his arms, struggled, and sank. When, after some hours, his body was recovered, his lower limbs were found rigidly drawn up, leaving no doubt as to the occasion of his sinking.

Both these young gentlemen were held in high esteem by their friends in the institution, as the following extracts from the records of the college faculty will testify:

Whereas, in the providence of God, we were called to mourn the death, on the 22d of April last, of James Martin Cosgrove, a member of the junior class, we desire to do honor to his memory, and to afford such consolation as we thus may to his afflicted relatives, by placing on record an expression of our sense of his worth, and of our sorrow at an event which seemed so untimely to our limited vision.

During the four years that Mr. Cosgrove was under our tuition his conduct and the character he manifested were such as to entitle him to our esteem and to win for him our affectionate regard. Truthfulness, frankness, generosity, and kindness of heart were marked traits in his character, while his intellectual ability and bodily vigor, with his enthusiasm and earnestness in study and in efforts for self-improvement, gave promise of a life that would be useful to his fellow-men and a comfort and blessing to his friends, and that would reflect honor upon the college. We felt his death as a loss to the institution; and to each of us it brought grief as the loss of a friend to whom we had a strong personal attachment. The evidence which he gave of a Christian temper of mind and of Christian conscientiousness in his daily conduct leads us to the confident hope that the event so afflictive to his surviving friends has been to him the gain of an everlasting life.

Mr. Julius C. Dargan, who lost his life by drowning on the 30th of May last, had been a student in the college for nearly four years; and, during that time, he had won the regard of his teachers by the serious, earnest character of his daily walk and conversation. It is, therefore, their desire and pleasure to put on record this evidence of their appreciation of his many admirable qualities as a student and as a man.

Mr. Dargan was ever faithful to the duties imposed upon him as a student, and during the first years of his connection with the college he was regarded as a young man of much promise; and although the power of his mind were afterward affected unfavorably by the bodily sufferings to which he was subjected by diseases which had fastened upon him, he continued to the last an eager and aspiring student, patient and painstaking in all his work. To these qualities were added a rigidity of moral principle that, being the prompting of a sincere Christian spirit, gave rise to that anxious solicitude to do his whole duty to God and man which was a marked peculiarity of his daily life. We cannot but believe that, with these characteristics, he would have fitted himself to fill a high sphere of honor and usefulness had life and health been spared him. Still we recognize the infinite wisdom and love of our Heavenly Father in removing our friend, by a sudden and comparatively painless death, from a life that to all human foresight had naught but suffering in store for him; and we commend this thought to his sorrowing friends, and the lesson of his life to all aspiring young men, well assured that in them there is comfort and instruction for all who tread the thorny ways of this world.

Death of Mrs. Thomas H. Gallaudet.—On the 13th of May, 1877, Mrs. Thomas H. Gallaudet, the first matron of this institution, died after a few hours' illness, at the house of her son, the president of the institution. Mrs. Gallaudet was appointed to the office of matron by vote of the board on the 30th of May, 1857, and assisted her son in the organization of the institution, holding the office of matron for nine years.

Shortly after her resignation of the office of matron, the following

preamble and resolutions were unanimously adopted by the board of directors:

Whereas this board, apprised of the fact of the retirement, as matron, from this institution, of Mrs. Thomas H. Gallaudet, and deeming this a fit occasion for some expression of their sentiments toward this esteemed and beloved friend, for so many years connected with this institution, caring for it, indeed, with a mother's care in the times of its infancy and comparative helplessness, thus having here accomplished the fullness of her task in this last important work of her earthly mission, and by reason of age and infirmity being now constrained to cease from all active participation in the public and philanthropic enterprise to which the later years of her life have been devoted; and whereas it is eminently proper that we should put in some permanent form, in testimony of our promptings, some tribute to a character so pure and a devotion so distinguished: Therefore,

Resolved, That we recognize in Mrs. Gallaudet one who was associated for many years in the nearest earthly relationship with a noble Christian benefactor (in our country the pioneer and founder of institutions for the deaf and dumb), and who, though herself knowing the loss of speech and hearing, and for years past walking in widowhood, has given her best energies to the cause of the afflicted, and left not only a bright record of her manifold personal services, but also a living monument in her philanthropic and devoted sons.

Resolved, That in her retirement now in the ripeness of her years and honor, and ceasing, as is most fit, from all those public, active labors and high responsibilities which she has so long sustained, she will bear with her, for the remainder of her life, our heartfelt appreciation of her many virtues and sterling worth, and our earnest prayers that her last days may be her best days, and that she may find at length in another state of being the perfect rest and reward which are promised to all the good.

After her retirement from the active service of the institution, Mrs. Gallaudet maintained, as was natural, a most lively interest in its prosperity, and during her yearly visits to her son she did much to advance the welfare of the institution, by her intercourse with the officers, pupils, and students in the capacity of a venerated friend and adviser.

ANNIVERSARY OF THE INCORPORATION OF THE INSTITUTION.

It was on the 16th of February, 1857, that the act of Congress incorporating this institution became a law. On the 16th of February last, the twenty-first birthday of the institution was celebrated by the formal opening and occupancy of the college building, an appropriation for the completion of which was made in March, 1877.

A meeting of the board of directors was called for that day, and all persons officially connected with the institution were invited to attend with their families.

Among those present were the President of the United States, who is ex-officio patron of the institution, with Mrs. Hayes and her cousin, Mrs. McFarland, of Kentucky; Vice-President Wheeler, who was for two years a director of the institution, with Mr. Dickinson, his private secretary, Dr. and Mrs. Woodworth, Mr. and Mrs. Leslie Weed, and Miss Alice Skinner, of Malone, N. Y., friends of the Vice-President; Mrs. Speaker Randall (the Speaker being unavoidably absent), Senators Edmunds and Dawes, and Governor Claflin, of Massachusetts, congressional directors of the institution, with their ladies; Rev. Dr. Sunderland, Hon. William Stickney, and Hon. Henry D. Cooke, corporate directors, with their families; F. C. Withers, of New York, architect of the new building, with Mrs. Withers; Senator Windom and ladies; Miss Harris, of

Virginia, daughter of Hon. J. T. Harris, a former director of the institution, with Hon. R. M. Knapp, of Illinois; Hon. Rufus P. Spalding, ex-member of Congress from Ohio, a former director of the institution, with Mrs. Spalding; Mr. and Mrs. R. C. Fox, and Mr. and Mrs. E. C. Cutter, the ladies being daughters of the late Hon. Amos Kendall, the founder and first president of the institution; Hon. D. C. Denison, an uncle of the wife of President Gallaudet, with Miss Denison.

After the building had been examined by the visitors they were summoned to the chapel hall by the college bell, where the meeting of the board of directors was called to order by the President.

Before the formal business of the board was entered upon, Mr. S. M. Freeman, of Ohio, a member of the senior class, expressed the feelings of the students in the following address, which he delivered orally:

MR. FREEMAN'S ADDRESS.

LADIES AND GENTLEMEN: The time to which we have long looked forward with eager anticipation has at length arrived. A work, which is but the auxiliary to a higher labor, is accomplished. The architect, the mechanic, the laborer, have one by one withdrawn to other fields of toil, but what a change they have wrought! Side by side with the old college dormitory, around which cluster so many pleasant reminiscences, has arisen an edifice whose beauty of form is enhanced by the uses for which it is intended. Its bright and cosy rooms invite one to study and retirement; its spacious halls are suggestive of comfort and elegance; and the whole seems to offer inducements to patient and cheerful industry. A long-felt want has been supplied; and as we pause to contemplate our surroundings the heart would fain seek to unbosom itself in a flood of expressions.

Surely this gathering is not intended for a mere interchange of compliments, but for heartfelt congratulations. The occasion marks a new era in the history of the college.

To-day the institution celebrates the twenty-first anniversary of its existence. As we turn back over the records of all those years, what prosperous and healthy growth do we find on every page! It is a growth fraught with all the evidences of a vigorous life; and now, as a young man who, standing upon the threshold of manhood, implores his father's blessing ere he enters the world's battle-field, so this young institution, about to turn over another leaf, stands prepared to receive the benediction which you are ready and willing to bestow.

To you, members of the board of directors, and to the president of the college on whose fidelity you have always firmly relied, as well as to the Congress of the United States, the thanks of the students are mainly due. We feel that we owe you a debt of gratitude we can never repay. Gladly would we declare in words our appreciation of this added evidence of your kindness, but the scantiness of language is such as to preclude the possibility of giving full utterance to the feelings of our hearts. Allow us to hope, however, that the future may not be barren of results, but that duty ever beckoning to us, may so direct our footsteps that all our actions may reflect honor upon our alma mater. We assure you that the elegant and commodious structure into which we have just removed, and to which we can point with pride, is to us not only an expression of generous magnanimity, but also a symbol of all that is beautiful and noble in life. Durable, substantial, and elegant, it is well fitted to serve as a pattern after which to mold our characters.

A good education is one of the choicest of earthly blessings. The man who has a clear comprehension of the world's history; of the unfolding of nature's laws, and the various truths of science; who has the highest and most perfect idea of an infinite Being, and who strives to bring himself into closer relation with that Being, is indeed a happy man. But were education neglected all these essential attributes of happiness would be lacking. When we reflect upon all these things, it is natural that we should regard this institution in the light of an unspeakable blessing. Wherever he is, and in whatever circumstances of life he may be placed, the educated deaf-mute can never, never forget the friends to whom he is indebted for his escape from a thralldom worse than slavery of the body.

Among those who honor us by their attendance to-day there are two whose presence is especially gratifying and whose interest in such gatherings never seems to diminish. President and Mrs. Hayes, amid all the vicissitudes of an active life, you have never ceased to give the deaf-mute new proofs of your benevolent regard. We greet you with pleasure, and hope you will share in the joy of this new possession.

We should fall far short of our duty if, on this occasion of rejoicing, we should pass without notice one whose name is forever linked with this institution. Amos Kendall deserves the grateful remembrance of all who enter these walls in search of knowledge; and we are sure that, were he with us at this moment, his eyes would light up and his countenance beam with pleasure as he gazed upon this assemblage. But

though he be not present in the flesh, we can imagine that, from that high sphere to which he has been called, his benign smile is beaming down upon us, and there is still the same "God bless you" awaiting us.

Twenty-one years have come and gone. They represent but a very small space in the ocean of time, but for the institution they have been years of fruitful abundance. And now as we enter upon our new era of prosperity, allow us once again, gentlemen of the board of directors, to thank you as the representatives of a great people. We will rest assured that, feeling as you must do the nobility of the service you are rendering, you find yourselves abundantly repaid for your exertions in our behalf.

Hon. William Stickney, secretary of the board, then read the following report:

REPORT OF THE BUILDING COMMITTEE.

The building committee of the board of directors of the Columbia Institution for the Deaf and Dumb beg leave to present to the board the following report:

On the day which marks the completion of twenty-one years since the institution was incorporated by Congress, we have the pleasure of informing you that all the buildings contemplated in plans submitted to Congress, eleven years ago, are finished.

The institution has now ample accommodations for all its departments, and nothing remains to be done for its material comfort but to provide for furnishing the new building, for the proper inclosure and improvement of the grounds, and for the erection of a gymnasium.

We are happy to be able to say that the cost of the improvements now completed falls within the original estimates and within the amounts appropriated by Congress, and that after meeting all expenses that have been incurred in connection with our recent building operations there will remain on hand a balance of nearly two thousand dollars, which, under the terms of the appropriation, can be applied toward furnishing the new building. A detailed statement of the disbursements made under the direction of your committee will be laid before the board at a future meeting, to be included in the annual report for the current year.

Your committee desire to express their satisfaction with the manner in which those who have had to do with the planning and construction of the new building have discharged the important tasks they have severally undertaken.

The architect, Mr. F. C. Withers, of New York City, has little need of praise at our hands. The beauty and convenience of the buildings here erected after his designs testify to his talent and skill as no words of a formal report could do. We may be permitted to say, however, that for the unusual accuracy and fullness of his drawings, and his readiness to give time for consultation and explanation either in New York or Washington, without extra compensation, Mr. Withers deserves the acknowledgments of the board.

Mr. J. G. Meyers, of Washington, our supervising architect, has been faithful and efficient in the discharge of his duties, and ever watchful of the interests of the institution.

Mr. J. G. Naylor, the principal contractor, has fulfilled his contract to the entire satisfaction of your committee, having shown himself on all occasions anxious to bring the work fully up to the requirements of the plans and specifications.

The subcontractors also deserve mention for the satisfactory manner in which they have performed their respective labors. They are as follows:

Messrs. M. A. McGowan & Co., stonecutters; Henry Conradis, brickmason; Smith, Birge & Co., iron-workers, tinnern, and plumbers; Charles Macnichol, painter; George B. Clark, slater,—all of Washington; and Thomas & Sons, of Baltimore, who furnished the butternut wood work.

Equally worthy of favorable notice, are Mr. William W. Vaughn, of Washington, who furnished the colored glass windows; Mr. W. H. Warner, of New York, who erected the steam heating apparatus; and Messrs. Miller & Coates, of New York, who laid the tiled floors in the corridors. These parties have done their work well, and at very moderate prices.

The expense of completing the college edifice, together with connections with the main central building, and the remodeling of the roof of the old section, has amounted to \$125,060.64. This sum includes all fixtures of a permanent character, such as the heating-apparatus, gas-lights, plumbing, &c.; also the expense of plans, specifications, and supervision.

In its construction the building is semi-fireproof. The corridor floors are laid on brick arches, the stairway is composed wholly of iron and stone, and there are numerous partition-walls of solid masonry. Should fire ever occur it is believed it could be speedily checked, and that in any event a safe means of exit is secured to the occupants of the building.

Not a few who are present on this occasion witnessed, on the very spot where we are to-day assembled, the opening of this institution, in a small frame cottage, with five pupils and one instructor.

For the steady and healthful growth that has continued since that day; for the liberality of benevolent men in Washington, Philadelphia, Hartford, and Boston; for the efficient and hearty co-operation of the many friends of the institution in Congress, rising sometimes to bold championship against bitter opposition; for the unwavering favor of the national legislature, and, above all, for the smile of Divine Providence, which has seemed ever to attend the work of this institution, your committee venture to congratulate the board and all who are interested in the welfare of deaf mutes; and to express the hope that so long as youth are found in our country needing such care and training as is here afforded, so long may this institution deserve and receive the support of a beneficent government.

E. M. GALLAUDET.
WM. STICKNEY.

Senator Dawes, in moving the acceptance of this report, congratulated the institution upon its steady and healthful growth from insignificant beginnings, and spoke warmly of the work of President Gallaudet, to whose indomitable will, untiring energy, and rare personal magnetism he attributed the success of the college. While others doubted the feasibility of his plans and aspirations, he never wavered, and to-day these noble buildings, and the noble work of which they are auxiliaries, attest the wisdom of his faith and the strength and benevolence of his purpose. He (Mr. Dawes) took pleasure in recalling the failure of his own efforts to discourage the proposal to purchase Kendall Green, and now gladly acknowledged the importance of having the title of this fine estate vested in the government, for thereby the perpetuity of the institution is secured, while the nature of its incorporation protects it from the disturbing effects of frequent political changes. He hoped the support it had received from Congress in its good work would be as steadily given in the future as in the past.

Dr. Sunderland, in seconding the motion of Mr. Dawes, referred to the favor of God which had so abundantly blessed the institution, and paid a tribute to the founder and first president of the institution, Hon. Amos Kendall, and indorsed Mr. Dawes's opinion of the work and ability of President Gallaudet. He then, on invitation, pronounced the benediction, and the gathering dispersed.

EXERCISES OF PRESENTATION DAY.

The exercises of the regular public anniversary of our collegiate department took place on the 1st day of May, in the chapel of the institution.

The number of visitors present far exceeded the capacity of the hall, many being unable to secure even standing room. The various departments of the government were represented as well as the diplomatic corps.

The President of the United States, in his capacity as Patron of the institution, occupied the chair.

The exercises were opened with prayer by Rev. Wm. W. Patton, D. D., president of Howard University, as follows:

O, Lord, who hast revealed Thyself to us through Thy manifold works, we thank Thee that Thou hast also given us knowledge of Thyself through Thy holy word; that we have learned of the way of salvation through Thy son, Jesus Christ; and that we dwell in a Christian land, and amid Christian institutions. We praise Thee that we are permitted on this auspicious occasion to gather together to engage in these exercises connected with the important work of education. We thank Thee for the blessings which Thou hast bestowed upon our land in this respect, and that Thou hast surrounded us on every side with occasions of thoughtful study, and that in this land there is opportunity for us to pursue our investigations for truth through a life-long period. We thank Thee that all classes are embraced within the provisions which are now made for education, and especially would we give Thee thanks that Thou hast turned, in these later days of education, the minds of instructors to the classes of persons represented by this institution, so long shut out from the privileges accorded to us. We desire, O, Lord, with gratitude, to recognize Thy good providence in so rapidly developing the means which could be put to use for their education, and that Thou hast caused the national bounty to flow out toward them in the establishment of this college; and we pray for Thy blessing to rest upon it in all its operations. We pray that Thou wilt be with us on this occasion. May all that shall here be said and done be to Thy glory, and the furtherance of the cause of humanity, through our Lord, Jesus Christ, amen.

The following address was then delivered by the president of the college :

ADDRESS OF PRESIDENT GALLAUDET.

The occasion which has brought us together at this hour is one of more than ordinary interest to the friends of this institution.

Besides being a day of festivity and rejoicing to all the members of the college, and the day of days to the young men who are soon to go out from its protecting walls, it is the crowning day of many years to those who have watched this institution from its foundation, and to those who have labored for its upbuilding.

In the times when science was young, the belief was widespread that certain occult powers resided in numbers ; that periods in the lives of men and of nations, represented by arithmetical quantities, were momentous.

Although the science of the present no longer accepts these antiquated notions, a certain interest, which it is not easy to explain, attaches to such coincidences as seem to sustain the superstition of our forefathers, and I trust I shall not be looked upon as a believer in the doctrines of the Cabala when I call attention to the fact that, in the institution whose anniversary we are assembled to celebrate, the sacred number *seven* marks the epochs of importance.

The end of the first seven years found the primary department complete in its appointments, and witnessed the inauguration of the college. At twice seven years the success of the latter as an educational undertaking had been demonstrated by the graduation of two classes from the full course of study, the broad domain of Kendall Green had been secured, and the building in which we are now gathered was finished and dedicated.

The third epoch, which closes to-day, finds the buildings of the institution complete, its organization perfected, and its resources, as assured by the legislation of Congress, sufficient for the work it has to do.

The institution enters upon a new existence from this time. The formative, experimental period is past. Henceforth its work is in the line of direct, untrammelled, feasible educational effort. There exists no longer a question as to the possibility of directing deaf-mutes through a course of collegiate study, nor is there any uncertainty as to the value of such training in fitting deaf-mutes for the higher walks of practical life.

Our earliest graduate is an instructor in the primary department of this institution.

Of the class of 1869, one member is the principal of the Western Pennsylvania Institution for Deaf-Mutes, a flourishing school of nearly eighty pupils ; another, well known in Washington, fills the position of principal examiner in the Patent Office, proving himself fully competent for the discharge of his delicate and important duties ; while another is a professor in the faculty of our own college.

One of the class of 1870 is the principal teacher in the young deaf-mute institution of Oregon ; others are instructors in Connecticut, Ohio, Tennessee, and Ontario, Canada.

Of the class of 1872, one is a professor in our college, one is the editor and publisher of a newspaper in Massachusetts, one has charge of a school for deaf-mutes in Cincinnati, and others are teaching in Nebraska and Mississippi.

From the later classes teachers have been furnished to the States of Minnesota, Iowa, West Virginia, Maryland, Indiana, Ohio, New York, and Pennsylvania ; one has become an accomplished draughtsman in the office of a New York architect, and one has taken a place in a lawyer's office in Columbus. And there is reason to believe that these men, besides many others not yet called to positions of such prominence, are exerting in the communities where they dwell the influence of upright lives, inspired by the principles of reverence to God and love to their fellow-men.

At our second commencement, in 1870, a warm friend of the college, then Secretary of the Interior, alluded to the missionary work that our graduates would find to do as teachers among those who were, like themselves, bereft of hearing. How fully and how soon his prediction has been fulfilled will appear from the fact that at the present time graduates of our college have under their immediate care and training upward of four hundred children and youth in the institutions of this country and Canada.

And thus, even before it has reached its maturity, we are allowed the satisfaction of knowing that the college for the deaf-mutes, denounced in prominent quarters but a few years since as an extravagant and useless experiment, has already done a work for the advantage of the whole country, the value of which cannot be estimated in money.

Turning from the consideration of the benefits this college may be expected to confer on the community at large, through the work of its graduates, it will, perhaps, be interesting to many here present to be informed as to the course of study afforded to the students, the satisfactory completion of which is made the ground for the conferring of our academic honors.

In the department of mathematics, the freshmen complete algebra ; they also study plane geometry, the geometry of space, and the conic sections. The sophomores study

plane and spherical trigonometry to mensuration and surveying, and learn to use logarithms with facility and precision in computation. The juniors demonstrate the propositions of mechanics mathematically, and solve numerous problems. They also study astronomy, and, while their work is chiefly of a descriptive character, classes have mastered the mathematical portion of Loomis's Treatise by extending the study into the first term of the senior year.

In the department of natural sciences an elementary work is studied by the sophomores, accompanied by illustrative experiments. In the junior year practical chemistry is taken up, and laboratory work is performed by each member of the class. A short course in qualitative analysis is pursued which illustrates the methods and enables the class to identify all the common minerals in compounds.

Natural philosophy is studied during the junior year, illustrations of the principal phenomena being given by means of suitable apparatus.

Botany occupies two terms of the sophomore year, physiology, mineralogy, and geology receiving attention at subsequent points of the course.

Beck's binocular microscope and Morton's college lantern are used for the purposes of manipulation and illustration.

The course in history is as full as that of the prominent colleges, comprising the study of American and English history, and a general survey of all the states of the civilized world in ancient and modern times.

More stress is laid upon both the critical and practical study of the English language than in other colleges, owing to the general deficiency of the deaf and dumb of this country in the use of that tongue; and philological studies, which are made optional in most colleges, are here included in the regular course. Frequent exercises in original composition are required of students in all the classes, and a full course in English literature is given.

Latin is studied during the freshman year and about one-half the sophomore year, and while, owing to the prominence given to French and German, and the critical study of the English, the proportion of time devoted to the ancient languages is less than in the usual curriculum of American colleges, it is believed that Latin is taught in such a manner as to awaken in the students the true spirit of classical scholarship, and enable them subsequently to read the more difficult authors independently with pleasure and profit.

French and German are taught by the "natural method" of Professors Heness and Sauveur, the language to be imparted being the only one used in the class-room, and familiarity with the grammatical forms and idioms being acquired by means of conversation and reading before the principles of grammar are taken up. The relations of French to Latin, and of both French and German to English, are explained. The success attained under the "natural method" has been of the most gratifying character.

Logic, rhetoric, and mental science receive as full attention as is usual in colleges; and the same may be said of moral philosophy, evidences of Christianity, political economy, international law, and æsthetics.

In all the departments of study ordinary college text-books are used; recitations are conducted almost wholly in verbal language, and the examinations, which occur three times a year, at the close of each term, are in writing.

On a scale of ten, a mark of 6.5 is necessary to pass an examination, and a standing below 7 is subject to censure.

Lectures are frequently given by the professors on subjects within their respective departments, and occasionally our students enjoy the benefit of addresses from gentlemen not connected with the college, such exercises being interpreted in the manner made use of in your presence to-day.

The young men who are to present essays this afternoon have reached the point in the course of study just detailed which entitles them to the position of candidates for degrees.

Three of them, having lost their hearing in childhood, are able to speak well enough to be understood in conversation; their voices are not, however, strong enough to reach the most distant portions of this hall.

It will be understood, therefore, that the authors of the essays read will make use of the language of signs in their delivery.

In opening the exercises of presentation day in the year of grace 1878, and of the independence of the United States the 102d, may I be permitted, on behalf of the faculty of the college, to congratulate the board of directors, the representatives of the government whose liberal appropriations have nobly supplemented and exceeded the benefactions of individuals, and all who have contributed of their time or their money for the support of this college, on the auspicious events of this day; and, if I may be allowed to speak for those whose ears the finger of God has touched, sealing them until the resurrection morning, may I express the hope and belief that this institution will not lack for support so long as there shall be found within the length and breadth of our land those who need its fostering care.

LETTER FROM REV. W. W. TURNER, PH. D.

Hon. William Stickney, secretary of the board of directors, then read the following letter from Rev. Dr. William W. Turner, for many years principal of the deaf and dumb institution at Hartford:

HARTFORD, April 25, 1878.

MY DEAR SIR: Your kind invitation to be present with you on your approaching presentation day has reached me, and has awakened within me the recollection of some of the most interesting events of my life. I cannot fail to mention, first of all, my call from your honored father in 1821 to aid him, almost in its beginning, in the new department of education he had so successfully introduced into this country, and then my having advocated in the second convention of teachers in 1851 the necessity of a high school or college for the deaf-mutes, and had hoped, as I intimated, that your father might be placed at its head. But the Good Master assigned him a higher seat in His kingdom of glory and qualified his youngest son for the responsible position.

This reminds me of the pleasant visits I made to Washington to see the deaf-mute college an accomplished fact—successfully carried forward under government patronage by your judicious management until it has now reached its *full majority*—and can never more be regarded as an experiment.

I shall never forget your regard for me in assigning me a position as a lecturer on natural history and the pleasant interviews I have had with your students in that capacity. Nothing but the infirmities of age, intensified by a life of hard work in the education of deaf-mutes, would have prevented more frequent and later efforts in the same direction, and my most ready and cheerful consent to undertake all you have desired me to do at your approaching “anniversary.” But while “the spirit is willing the flesh is weak.” I dare not, therefore, venture to place myself in my present feeble condition under the excitement of the occasion and the temptation to exertions beyond my strength.

I must, with sincere regret, decline your invitation, and deny myself the pleasure which, under other circumstances, a visit to your hospitable mansion would have given to both Mrs. Turner and myself.

With our kind regards to Mrs. Gallaudet and our prayers for your future prosperity and welfare, I am, most affectionately, yours,

WM. W. TURNER

E. M. GALLAUDET, LL.D.

The candidates for degrees delivered essays, as follows:

Dissertation, William Wordsworth, by Delos Albert Simpson, Michigan.

Dissertation, John Kitto, by Frank Caleb Holloway, Iowa.

Oration, The Sidereal Heavens, by Frank Ross Gray, Illinois.

Oration, The English Parliament, by Samuel Mills Freeman, Ohio.

After the conclusion of the essays presented by the candidates for degrees, the following addresses were delivered:

ADDRESS OF WILLIAM E. NIBLACK, OF INDIANA.

MR. PRESIDENT, LADIES AND GENTLEMEN: I am not here to-day for the purpose of addressing you at any great length. Circumstances are not favorable, if I should wish to do so, as our time is quite limited.

It has so happened that, during most of the years in which I have been engaged in public life, I have been frequently called upon to aid in enterprises like this; that is, in assisting to build up and maintaining the benevolent institutions of the country, first in my own State, and afterward in the Congress of the United States. I do not claim great credit for anything I have done in that direction. I attribute what I have done more to an inability to say no, when asked to perform what seemed to me to be a plain duty, than anything else. I had not the courage to do otherwise than assist when I have had the opportunity.

I have watched the progress of this institution, step by step, for many years. Twenty years ago when I first became acquainted with it, there were but a few acres of ground and a small and modest brick building, all of which were the gift of one of our distinguished citizens and philanthropists. It was not endowed. The organization which controlled it was strictly a private one, and the gentlemen who composed that organization devoted themselves to their duties simply as a matter of charity and benevolence.

Congress, however, extended some aid to the institution from the beginning in the shape of small appropriations for the education of the deaf-mutes of the District. These

appropriations were afterward increased from time to time as the growth and emergencies of the institution seemed to require. After the close of the war, when the attention of Congress could be better given to the ordinary affairs of civil life, a very grave question arose as to what should be the exact future relations of this institution to the Government of the United States. Upon this subject there were some grave differences of opinion. Inasmuch as the corporation was a private one, and the government had no title to the property controlled by it, it was contended by many that the most that could be done was simply to appropriate money each year to pay for the education of the deaf-mutes of the District who might attend the institution, without assuming any control or responsibility further of the institution itself. Under that construction there never could have been much growth or much development. Finally, however, after much earnest discussion, and after careful consideration, in which I had the honor in some way, from time to time, to participate, Congress came handsomely to the rescue, and assumed the ownership of its property and a share in the control of the affairs of the institution. This arrangement resulted in the purchase by Congress of a large additional tract of land adjoining the original tract or site. Provision was made for a certain number of directors to represent Congress in the management of the institution. Provision was also made for the erection of this magnificent college building, which has just been finished, the completion of which is an occasion of special rejoicing to-day. So that we find ourselves now no longer struggling to maintain a mere private school as of twenty years ago, but in the possession of an institution fully recognized among the higher institutions of learning in the country. We have now large and commodious grounds with magnificent and appropriate buildings, with a fully organized and most efficient faculty, capable and prepared to give the most thorough instruction of any institution for the deaf and dumb in the whole world. This may be considered a remarkable announcement, but it is nevertheless true. In reality it is the only institution which is prepared to give the deaf-mutes of this or any other country a thorough collegiate education; and to be able to make that announcement at the end of the brief period of twenty-one years reflects high credit upon all who have been actively engaged in bringing about this very great result.

I therefore extend my congratulations, not only to the faculty, but to all connected with the institution, upon the success they have achieved. This work, however, has not been brought about without strenuous and persistent efforts upon the part of those immediately in charge of the institution. Objections have been interposed every time they asked for further appropriations, for the reason, among others that I have named, it was objected that the institution was costing too much; not that there was extravagance, but that the deaf-mutes of the District here, for whom it was originally intended, ought to be educated at a smaller cost and by some less expensive methods. Others objected entirely to the making of any appropriation by Congress, under the impression that this was a private charity in the beginning and ought to continue to be a private charity merely and be supported by those having an interest in deaf-mute education. In my judgment these objections were never well taken. It is an axiomatic truth, conceded to be so at least, that popular education, universal education, is a necessity of our political condition; that popular government can only be sustained by universal education. The deaf-mutes of the country are just as much a portion of our population and as much citizens of the United States as any other portion of the community. Therefore, I always felt that the obligation to educate deaf-mutes was one resting as much upon us as any other obligation of similar import; and because it may happen to cost a little more money *per capita* to educate any of these persons in the way that is essential for their future usefulness is no reason why we should not acknowledge that obligation.

As has been said by Dr. Gallaudet, the distinguished president of this institution, this institution now, with the completion of the college building, enters upon a new career. It is now at the very front and leads the way in this grand enterprise. Hereafter I hope we shall not have to call upon the government for so much aid as we formerly had to do. What we shall be required to do hereafter will be more of a routine and of a professional character, and those connected with the institution will have the opportunity of devoting themselves more exclusively to the matters of education alone. I confidently anticipate, therefore, for those immediately in charge of the institution an easier and a much more comfortable time than in the doubtful and uncertain days now past and gone.

I think we may also safely count upon a career of continual and increasing usefulness in the great work which has been assigned to this institution.

My observation in life has impressed me very strongly with one idea, and that is that the success of all great enterprises, whether they be public or private, is mainly due to the energy of some one controlling mind. You may take the great newspaper establishments of the country, which are one of the strongest features of this American civilization of ours, and the success of nearly every one is attributable to the mind of some one person at some time connected with it. So it is in all great enterprises to which the public attention is usually directed. I think I may with propriety on this occasion,

	P ¹ Q	
	P ¹ Q	
b.d	b.d	b.d
b ¹ d	b ¹ d	b ¹ d
p ¹ q	p ¹ q	p ¹ q

occupying the position which I have, and the opportunities which I have had, speak a word upon that subject. If this institution had not fallen into the hands of its present distinguished president, or some such gentleman as he, I think it would never have enjoyed the proud eminence which it now occupies. [Applause.] I have often heard the remark made of seeing "the right man in the right place," and I intend no ordinary compliment when I say that I regard the distinguished president as emphatically in that capacity. [Applause.] Devoted to his work by a long previous training, and by an earnestness which I have never seen excelled, he has made this matter his own from the very beginning until the present hour. Several times when he wanted additional appropriations to do what seemed to be necessary about the institution, while I very much desired his success, I felt that he had undertaken more than could be obtained for the present, and I have witnessed the cold manner in which these suggestions have been received by those having the appropriations specially in charge; but somehow, under the influence of that earnest zeal, that even temperament, and the strong arguments which have always characterized his efforts, before the close of the session he would get practically just what he desired. [Applause.] I think but few appeals have been made by Dr. Gallaudet which have not been granted. I know I was always unable to resist him myself, and I think that has been about the condition of most others to whom his benevolent appeals have been made.

Upon this occasion I want to say another thing: that the success of this enterprise in later years has been largely due to the magnificent generosity of the general government. It was impracticable for private charity to go forward and make it the institution it is to-day. As I have remarked, for many years it had a very doubtful existence, and was unable to claim any well-defined relations with the general government, while yet, to some extent, sustained by it. The subsequent action of Congress, to which I have referred, has relieved it of that anomaly, and has placed it upon a very sure footing as regards the means for its support. The success of the institution in the future is therefore, I feel, assured, and we ought now to be able without any very great extra effort to sustain the work which has been already so well begun, making it a continued success. In referring to Dr. Gallaudet in such terms as I feel I ought to do under the circumstances, and especially as I may not have an opportunity of addressing so many of the immediate friends of the institution very soon again, I do not desire to underrate the other persons associated with him in his good work, nor do I wish to underrate the services of his most excellent faculty, and that of his assistants, nor would I have you lose sight for a moment of that magnificent man who founded this institution, the Hon. Amos Kendall, to whom I have heretofore referred, and who must never be forgotten when we refer to the history of the institution. I feel, so far as I am personally concerned, and I trust you all have this same feeling with me, the most profound satisfaction at the situation by which this institution is surrounded to-day, its twenty-first anniversary. I also feel great satisfaction in reflecting on the great improvement which has been made in the matter of deaf-mute education generally within the period of the last fifty years. It is to the deaf-mute a new life, exerting new hopes and aspirations. For myself I have never entered one of these institutions, either for the education of the deaf-mute or the blind, or for the care of the insane, and witnessed all the appointments made for the improvement of these unfortunate classes, without having, for the moment at least, a better opinion of our race and of the civilization under which we live. Ladies and gentlemen, I will not detain you longer.

ADDRESS OF HON. JAMES A. GARFIELD, OF OHIO.

MR. PRESIDENT, AND LADIES AND GENTLEMEN: Your exercises have been already sufficient for all your desires, I am sure, and I will only detain you to say how much I am gratified to see the completion of this enterprise, which has been struggling up for so many years, and has reached a point at last where I think almost anybody will rejoice at its further progress. I believe I said, on this stage nine years ago, that nothing impressed me more during the later days of the war, when I first came to this city, than seeing the great marble columns being set up on the east, west, north, and south fronts of yonder Capitol, while the sound of battle was echoing across the Potomac, and shaking the very windows of the Executive Mansion. It was a touching exhibition of unshakable faith in the final triumph and permanency of the Union. While fighting with all their might to maintain its existence, the American people were quietly setting up these noble columns as symbols of their faith that there would forever be a great capital of a great nation here, beside the beautiful Potomac; and step by step, as the struggle went on and the restoration of the Union became certain, the determination seemed to be crystallized in the American mind that there should not be another rebellion like it; and as they had strengthened and adorned our marble Capitol, so also they set up new pillars of justice and freedom, the living temple of our liberties, to be its perpetual glory and support. By the same inspiration our work of education, national in its spirit, earnest and determined in its character, has been pur-

sued during the last fifteen years more than in any other period, because our people saw that the safety of the nation required it.

I am rejoiced to know that this institution cherishes the ideas I have been trying to set forth. These afflicted young men were only recently regarded as an almost helpless and useless portion of our common humanity. The effort of their country to set them in a place where they should have an equal chance in the race of life, is most worthy; and here first, I believe, on the earth, certainly first in America, the deaf-mutes find an opportunity to enjoy college rights and privileges equal to those enjoyed by others who are not so afflicted. And that is great. It is the great glory of our republic that she has done it; and at a time when it costs something to do it.

This institution is one of the three that the United States supports. The one to educate her sons for the Navy, the other for the Army, both of these for the safety of the nation in time of war, and for her safeguard against war; and the third, this institution, in which the government reaches out its hand to make you the equal of all her other citizens not afflicted as you are. What is the meaning of all this? The lesson it teaches is the increased value to Americans of training. That, in my judgment, is the best lesson of our century. We are coming to understand that, whether you want a man for war, or for peace—for whatever purpose you need him—a trained man is better than an untrained man. However great your untrained man may be, he would be greater and more efficient if he had been trained. College training is not meant to give you facts, but to teach you how to handle facts when you enter the many-sided life of our country.

People waste a great deal of time thinking whether they had better study Latin or Greek, or this or that science. I sum up all I have to say on the subject by calling attention to the remark of a distinguished French scholar; when asked if it were necessary to have a knowledge of the ancient languages, he said, "O, no; it is not necessary to know Latin, but it is necessary to have forgotten it." That is, either be a man who now knows it, or be one who has forgotten it, but saved the training it gave.

Thanking you, Mr. President, and ladies and gentlemen, for your kind attention to this discursive talk, I bid you good day. [Applause.]

Messrs. Freeman, Gray, Holloway, and Simpson were then presented by the president of the college to the board of directors as candidates for the degree of bachelor of arts. The president announced that the board had conferred the honorary degree of master of arts on Otto Friedrich Kruse, the most distinguished deaf-mute of Germany.

The Rev. Thomas Gallaudet, D. D., rector of St. Ann's church for deaf-mutes in New York City, then dismissed the audience with the benediction.

It is worthy of mention in this connection, as indicating the interest felt in Europe in our college, that the *Journal de Bruxelles* of August 13 last contains an appreciative article upon the college from the pen of the eminent Mgr. de Haerne, speaking of the degree of master of arts recently bestowed by the college upon O. F. Kruse, the German deaf-mute, who has distinguished himself as a teacher and writer. Mgr. de Haerne says it is "a powerful encouragement given to deaf-mutes in general, inasmuch as this honor conferred upon one of their number tends to raise them all in the social scale, by removing the barrier which in the eyes of the world separated them in their instruction from the rest of society."

COMPLETION OF THE BUILDINGS OF THE INSTITUTION.

With the completion of the college-building already alluded to in this report, the plans submitted to Congress in our ninth report are fully carried out.

As presenting better ideas of our buildings and grounds than any verbal description could do, seven photographs are herewith transmitted, which have been taken by a young deaf-mute photographer, Mr. Ronald Douglas, who was for two years a student in our college.

No. 1 presents a view of about half of Kendall Green, taken from a hill on the adjoining estate of Trinidad, recently donated to the Colum-

bian University by William W. Corcoran, esq. At the extreme right of this view will be seen the location of the residence occupied by Hon. Amos Kendall at the time of the establishment of this institution. The house, which fell very much into decay after Mr. Kendall's removal from it, has lately been taken down and rebuilt as a farm cottage, and is now occupied by the steward and farmer of the institution.

No. 2 gives a view of the main buildings of the institution, taken from the roof of the president's house.

No. 3 shows the dwelling-houses occupied by the president and professors.

No. 4 is a view of the terrace and a portion of the chapel front, taken from a window in the building of the primary department.

No. 5 gives a view of the museum.

No. 6 is a copy of a picture taken some years since of the building in which the institution commenced its operations twenty-one years ago. The same building was used seven years later as the first home of the collegiate department.

No. 7 gives a view of a building erected in 1859, at the expense of Hon. tAmos Kendall, and by him presented to the institution, together with pwo acres of land. This structure forms a part of the building of the primary department, and its west wall can be seen in view No. 2.

The appropriation of \$5,000 made by Congress at its last session for the improvement and inclosure of our grounds has enabled us to complete the terrace-wall connecting our main buildings; to erect six lamps in the grounds near the buildings; to pave the approaches from the gateway to the several buildings with a substantial concrete pavement six inches in thickness, which serves as carriage-way and foot-path at the same time; to build a substantial gate-keeper's lodge, containing four rooms; to inclose in terra-cotta piping of suitable diameter a drain 500 feet long, leading away from our buildings, that has remained uncovered for several years; to build fifty-five rods of new fencing on our western boundary-line; to repair more than a hundred rods of fencing; to grade and gravel a thousand square yards of roadway; to lay turf around the college-building and the approaches thereto; leaving about \$500 still unexpended, with which it is designed to purchase trees and shrubbery for planting next spring.

The receipts and expenditures for the year now under review will appear from the following detailed statements:

RECEIPTS AND EXPENDITURES.

I.—SUPPORT OF THE INSTITUTION.

Receipts.

Balance from old account	\$612 18
Received from Treasury of the United States	48,000 00
Received for board and tuition	1,441 88
Received from manual-labor fund	291 00
Received from students for books and stationery	349 29
Received for work done in shop	276 97
Received from sale of live stock	140 50
Received for damage to grounds by cattle	8 50
Received from sale of gas	99 91
Received from pupils for repairs to shoes	5 00
Received from sale of old carpet	2 38
Received from sale of milk	109 80
Received from sale of wheat	138 15
Received from sale of old wood	91 00
Received from sale of apples	7 50
Received for transportation refunded	4 00
	51,578 06

Disbursements.

Expended for salaries and wages.....	\$28,253 69
Expended for groceries	2,629 44
Expended for meats	4,499 64
Expended for potatoes	506 50
Expended for incidental and household expenses, marketing, &c	2,872 83
Expended for butter and eggs	2,045 97
Expended for fuel	1,104 23
Expended for bread	1,353 77
Expended for gas.....	1,147 98
Expended for repairs on buildings, &c.....	1,638 43
Expended for furniture	290 85
Expended for live-stock.....	225 00
Expended for expenses of directors' meetings and public anniversaries	213 50
Expended for books and stationery	767 13
Expended for dry goods and shoes.....	243 29
Expended for medical attendance	214 00
Expended for feed, fertilizers, farm-tools, &c.....	300 38
Expended for lumber	289 71
Expended for printing and engraving	74 00
Expended for ice	125 74
Expended for drugs and chemicals	154 21
Expended for new carriage, and carriage and wagon repairs.....	388 68
Expended for excursion and entertainments for pupils.....	86 06
Expended for illustrative apparatus.....	258 00
Expended for blacksmithing	84 00
Expended for harness and repairs	45 94
Expended for hardware.....	338 06
Expended for erection and rent of telephones.....	117 50
Expended for clothing for pupils	8 50
Balance unexpended.....	1,301 03
	51,578 06

II.—EXTENSION AND FITTING UP OF BUILDINGS.

Receipts.

By balance	\$12 24
Received from Treasury of the United States.....	72,024 62
	72,036 86

Disbursements.

Expended for wages and labor.....	\$1,399 86
Expended for architect's services.....	2,201 36
Expended on contracts with J. G. Naylor.....	55,392 74
Expended for heating	3,400 00
Expended for glass windows.....	712 00
Expended for stone-work	597 25
Expended for paving and grading.....	387 29
Expended for iron-work	268 20
Expended for gas-fixtures.....	402 96
Expended for tiles for corridor floors	2,334 28
Expended for weather-vane, anemometer, and recording instrument....	181 00
Expended for lumber.....	947 33
Expended for brick-work	637 29
Expended for material.....	747 08
Expended for furnishing.....	1,255 37
Expended for plumbing and tin work	506 19
Expended for lightning-rods	162 00
Expended for slating	120 55
Expended for plastering	343 75
Balance.....	40 36
	72,036 86

ESTIMATES FOR NEXT YEAR.

The following estimates for the service of the fiscal year ending June 30, 1880, have already been submitted:

For the support of the institution, including salaries and incidental expenses, and five hundred dollars for books and illustrative apparatus, fifty-one thousand dollars.

For the erection of a gymnasium with bath-house attached, and the improvement of the grounds of the institution and the inclosure of the same, fifteen thousand five hundred dollars.

The first estimate is for the same amount as was appropriated by Congress at its last session for the current expenses of the present year.

The improvements contemplated in the second estimate are very important to the welfare of our pupils and the safety and proper care of our grounds.

We have long felt the need of a gymnasium, to enable us to give proper attention to the physical development of our pupils, but the urgent demands of the institution in other directions have led us to postpone this improvement until the main buildings were completed.

The fact that no less than four of our older pupils have met death by drowning, and our knowledge of the fact that many of them have never been taught to swim, have made it seem desirable that in connection with our gymnasium there should be a bathing-pool of sufficient size to enable us to teach all our pupils how to manage themselves in the water.

The second estimate is designed also to provide for the further improvement of our grounds, in accordance with the plans of Mr. Fred. Law Olmstead, adopted twelve years ago, and to commence the erection along our front line on Boundary street of a substantial stone and iron fence, the need for which begins to be very pressing.

All of which is respectfully submitted by order of the board of directors.

EDWARD M. GALLAUDET,
President.

Hon. C. SCHURZ,
Secretary of the Interior.

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APPENDIX.

CATALOGUE OF STUDENTS AND PUPILS.

IN THE COLLEGE.

- From Connecticut.*—Robert Newton Parsons.
From Delaware.—Theodore Kiesel.
From Georgia.—Lewis Arthur Palmer.
From Illinois.—Charles Chester Codman, Lester Goodman, Frank Ross Gray, Alva Jeffords, James Moline Tipton.
From Indiana.—James Irvin Sansom, Jesse Cross.
From Iowa.—Frank Caleb Holloway, William Austin Nelson.
From Maryland.—Charles Stewart.
From Massachusetts.—John Francis Donnelly, Frederick Fremont Smith, John Albert Prince, Albert Samuel Tufts, Henry White.
From Michigan.—George Melnotte Grummond, Delos Albert Simpson, Edward Louis Van Damme.
From Minnesota.—James Martin Cosgrove, Jeremiah P. Kelly, James Lewis Smith.
From Missouri.—George Thomas Dougherty.
From New York.—William Albert Jackson, John Gordon Saxton.
From New Hampshire.—William E. White.
From North Carolina.—Albert Johnson Andrews.
From Ohio.—Hugh Robert Drake, Samuel Mills Freeman, Robert King, Joseph Winton Leib, Richard L. H. Long, Charles Merrick Rice, Collins Stone Sawhill, Isaac Hatcher Sawhill, Albert Henry Schory, Frank Wiley Shaw, Samuel Cox Stebelton, Robert Newton Stevenson, Alfred Flinn Wood, John Joachim Viets.
From Pennsylvania.—Eddie Romanzo Carroll, Jerome Thaddeus Elwell, Abram Frantz, Jacob Mitchell Koehler, Herbert Monroe Mallick, Robert Middleton Zeigler.
From South Carolina.—Thomas Hines Coleman, Julius C. Dargan, David Calhoun Hicks.
From Tennessee.—Isaac Newton Hammer.
From Vermont.—James Dresser Allen, Frank Wilson Bigelow.
From West Virginia.—George Layton.
From Wisconsin.—Lars M. Larson, James Joseph Murphy, Harry Reed.
From District of Columbia.—Arthur Dunham Bryant, Charles Clifford Griffin.

PRIMARY.

Females.

Louisa Yocum Fisher	District of Columbia.
Annie H. Elliott	South Carolina.
Katie Elliott	South Carolina.
Jennie J. Gillem	Tennessee.
Lydia Leitner	Maryland.
Margaret Ryan	District of Columbia.
Josephine Sardo	District of Columbia.
Eliza Thompson	District of Columbia.
Sophia R. Weller	District of Columbia.
Clara V. White	District of Columbia.

Males.

Wilbur F. Bateman	Ohio.
William Brookmire	Pennsylvania
Edward T. Burns	District of Columbia.
Elmer E. Butterbaugh	District of Columbia.
Enoch G. Carroll	District of Columbia.
Edward Carter	District of Columbia.
Fred C. Cook	Louisiana.
Douglas Craig	District of Columbia.
John Francis Craig	District of Columbia.
Josiah Cuffy	Fortress Monroe.

Robert W. Dailey	District of Columbia.
William F. Deeble	District of Columbia.
Edgar Graugnard	Louisiana.
Edward O. Herr	Kentucky.
Timothy Hyde	Delaware.
Jeremiah Hyde	Delaware.
William Kohl	District of Columbia.
Charles E. D. Krigbaum	District of Columbia.
Frank A. Leitner	Maryland.
Joseph Lyles	District of Columbia.
John O'Rourke	District of Columbia.
Columbus A. Rhea	District of Columbia.
Henry L. Rhea	District of Columbia.
William J. Rich	District of Columbia.
Moses Robinson	District of Columbia.
John A. Starks	Virginia.
Erving H. Starks	Virginia.
William A. Tilley	District of Columbia.
John W. L. Unsworth	District of Columbia.
Nelson White	District of Columbia.
Louis Whittington	District of Columbia.

REGULATIONS.

I. The academic year is divided into three terms, the first beginning on the Thursday before the last Thursday in September, and closing on the 24th of December; the second beginning the 2d of January, and closing the last Thursday before Easter; the third beginning the first Tuesday after Easter, and closing the Wednesday before the last Wednesday in June.

II. The vacations are from the 24th of December to the 2d of January, and from the close of the term in June to the opening of the term in September.

III. There are holidays at Thanksgiving and Easter.

IV. The pupils may visit their homes during the regular vacations and at the above-named holidays, but at no other time, unless for some special, urgent reason, and then only by permission of the president.

V. The bills for the maintenance and tuition of pupils supported by their friends must be paid semi-annually, in advance.

VI. The charge for pay-pupils is \$150 each per annum. This sum covers all expenses in the primary department except clothing, and all in the college except clothing and books.

VII. The Government of the United States defrays the expenses of those who reside in the District of Columbia, or whose parents are in the Army or Navy, provided they are unable to pay for their education. To students from the States and Territories who have not the means of defraying all the expenses of the college course, the board of directors renders such assistance as circumstances seem to require, as far as the means at its disposal for this object will allow.

VIII. It is expected that the friends of the pupils will provide them with clothing, and it is important that upon entering or returning to the institution they should be supplied with a sufficient amount for an entire year. All clothing should be plainly marked with the owner's name.

IX. All letters concerning pupils or application for admission should be addressed to the president.

REPORT

OF THE

FREEDMEN'S HOSPITAL AND ASYLUM.

FREEDMEN'S HOSPITAL,
Washington, D. C., October 1, 1878.

SIR: I have the honor to transmit the annual report of the Freedmen's Hospital and Asylum for the fiscal year ending June 30, 1878, as follows: The whole number of patients in hospital and asylum during the year was 807, viz:

Remaining in hospital and asylum June 30, 1877	277
Admitted to hospital during the year, viz: Males, white	140
Admitted to hospital during the year, viz: Females, white	20
Born in hospital, viz: Males, white	2
Born in hospital, viz: Females white	4
Whole number of white	166
Admitted to hospital during the year, viz: Males, colored	154
Admitted to hospital during the year, viz: Females, colored	159
Born in hospital, viz: Males, colored	22
Born in hospital, viz: Females, colored	18
Whole number of colored	353
Transient	11
Total number admitted, supported, and treated in hospital	807
Of the above patients there were discharged cured	385
Discharged relieved	56
Transient	11
Died	118
Still-born	6
Remaining in hospital June 30, 1878	231

The Colored Orphans' Home and Asylum, containing about 115 children and attendants, has been furnished with medicines and medical attendance during the year.

This home and asylum was, until last year, supported in part by this hospital; but a separate appropriation having been granted them by Congress, their relations were discontinued the first day of July, and their names dropped from the rolls on the first day of August.

Besides the above a large dispensary has been supported for the benefit of the numerous poor who are constantly applying to this hospital for aid. Of these the names of 1,083 have been entered in the book for out-patients, and about four thousand prescriptions made and put up for them.

The nativity of the patients admitted to hospital was as follows:

Virginia	171	England	4
Maryland	98	Ohio	4
District of Columbia	83	Massachusetts	4
Ireland	49	Georgia	3
Germany	18	Switzerland	3
Pennsylvania	18	West Indies	3
New York	15	Canada	2
Tennessee	6	Holland	2
North Carolina	5	Missouri	2
New Jersey	5	Scotland	2

Vermont	2	Kentucky	1
West Virginia	2	Minnesota	1
Alabama	1	Mississippi	1
Bohemia	1	Russia	1
Connecticut	1	South Carolina	1
Delaware	1	Wisconsin	1
Florida	1	Unknown	7

The diseases and conditions for which the patients were admitted to hospital, and treated in dispensary, were as follows:

Disease.	Hospital.	Dispensary.	Disease.	Hospital.	Dispensary.
Fracture of skull	1	.....	Hæmorrhoids	1	4
Fracture of skull and femur	1	.....	Inflammation of rectum	1	.....
Fracture of neck of femur	1	.....	Peritonitis	1	2
Fracture of neck of scapula	1	.....	Laryngitis .....	.....	1
Fracture of acromion process	1	.....	Asthma	5	6
Fracture of rib	1	.....	Catarrh	1	35
Fracture of forearm .....	.....	6	Bronchitis, acute	3	46
Fracture of arm .....	.....	1	Bronchitis, chronic	9	19
Punctured wounds	1	3	Pneumonia	8	4
Incised wounds	1	.....	Pleurisy	3	16
Gunshot wounds	4	2	Pleuro-pneumonia	1	.....
Contusions	11	5	Pleurodynia .....	.....	5
Sprains .....	.....	9	Pertussis	1	3
Amputation of arm	1	.....	Phthisis pulmonalis	51	48
Amputation of forearm	2	.....	Hæmoptysis	1	2
Amputation of leg	1	.....	Gangrene of lungs	1	.....
Amputation of thigh	1	.....	Congestion of lungs	1	.....
Amputation of toe .....	.....	1	Inflammation of brain	2	.....
Inflammation of knee-joint	1	.....	Paralysis	7	7
Frost-bite	3	.....	Apoplexy	1	.....
Burn (kerosene)	1	.....	Concussion of brain	1	1
Chronic ulcer	14	6	Epilepsy	6	.....
Morbus coxaries	2	.....	Insanity	3	.....
Aneurism, popliteal	1	.....	Dementia	4	.....
Abscess	10	5	Cephalalgia .....	.....	8
Boils .....	.....	2	Curvature of spine .....	.....	1
Caries	7	.....	Hysteria .....	.....	12
Chilblains .....	.....	2	Neuralgia .....	.....	7
Poison	1	.....	Ophthalmia	2	.....
Bursa	1	.....	Conjunctivitis	2	13
Whitlow .....	.....	1	Amaurosis .....	.....	2
Scrofula	1	15	Blindness	3	.....
Leprosy	1	.....	Erythema	2	1
Cancer	9	.....	Scabies	1	2
Syphilis	18	33	Carbuncle	1	1
Syphilis, secondary	5	.....	Keloid tumor	2	.....
Bubo .....	.....	7	Tinea capitis .....	.....	1
Gonorrhœa	3	44	Urticaria .....	.....	1
Gleet .....	.....	2	Rupia .....	.....	1
Urethritis	1	.....	Herpes .....	.....	3
Incontinence of urine .....	.....	1	Lupus .....	.....	1
Hemorrhage from urethra	1	.....	Otitis .....	.....	2
Orchitis	1	2	Encysted tumor .....	.....	2
Retention of urine .....	.....	1	Worms .....	.....	9
Rheumatism	33	70	Ecthyma .....	.....	5
Chronic cystitis	3	6	Functional disease of heart .....	.....	6
Alcoholism	9	.....	Hypertrophy of heart	1	1
Dypsomania	2	.....	Valvular disease of heart	5	.....
Anæmia	1	.....	Cardiac dropsy	4	.....
Inanition	1	.....	Renal dropsy	7	1
Asthenia	1	.....	Bright's disease	4	.....
Lumbago .....	.....	1	Hepatic dropsy	1	.....
Gout .....	.....	1	Ascites	2	.....

Diseases, &c., for which admitted—Continued.

Disease.	Hospital.	Dispen- sary.	Disease.	Hospital.	Dispen- sary.
Typhoid fever	4	.....	Hepatitis	1	.....
Remittent fever	6	13	Pregnancy	48	13
Intermittent fever	36	101	Metritis	1	3
Congestive chill	2	.....	Ovarian tumor	5	.....
Erysipelas	1	4	Fibrous tumor	1	1
Measles	1	.....	Prolapsus uteri	1	.....
Varicella	1	3	Abortion	2	1
Septicæmia	1	.....	Puerperal condition	1	.....
Tonsilitis	2	23	Mammitis .....	.....	2
Aphthæ .....	.....	4	Mammary abscess	1	.....
Harelip	1	.....	Menorrhagia .....	.....	12
Colic .....	.....	5	Leucorrhœa .....	.....	8
Gastritis	1	2	Amenorrhœa .....	.....	5
Dyspepsia	4	33	Dysmenorrhœa .....	.....	2
Diarrhœa, acute	3	54	Born	46	.....
“ chronic	4	23	Infancy	4	.....
Dysentery	4	15	Senile debility	8	4
Constipation .....	.....	104	Congenital debility	1	3
Hemorrhage of bowels	1	.....	Convalescent	8	.....
Fistula in ano	3	.....	Deformity	1	.....
Hernia, inguinal	5	.....	Dentition .....	.....	15
“ scrotal	1	.....	Teeth extracted .....	.....	125
			Total	519	1,083

The following table shows the number of cases of each disease which resulted fatally :

Disease.	White.	Colored.	Total.	Disease.	White.	Colored.	Total.
Phthisis pulmonalis		40	40	Chronic colitis		1	1
Senile debility		9	9	Chronic diarrhœa	1	1	2
Cardiac dropsy		8	8	Concussion of brain		1	1
Renal dropsy	1	4	5	Congenital debility		1	1
Pneumonia	1	4	5	Congestive chill		1	1
Hæmoptysis		3	3	Convulsions		1	1
Typhoid fever		2	2	Diarrhœa		1	1
Congestion of brain		2	2	Dysentery	1	.....	1
Congestion of lungs	1	1	2	Gangrene of lungs		1	1
Cancer of uterus		2	2	Gunshot wound	1	.....	1
Cancer of larynx		1	1	Hematemesis		1	1
Cancer of stomach		1	1	Melæna		1	1
Cancer of right axilla		1	1	Meningitis		1	1
Cancer of clitoris		1	1	Paralysis		1	1
Acute metritis		1	1	Paralysis, general		1	1
Albumenuria		1	1	Paraplegia		1	1
Apoplexy	1	.....	1	Peritonitis		1	1
Ascites		1	1	Pleuro-pneumonia	1	.....	1
Asthénia		1	1	Puperal peritonitis		1	1
Burn from kerosene oil		1	1	Premature birth		1	1
Capillary hemorrhage around the umbilicus		1	1	Psoas abscess		1	1
Caries of carpus, ulna, scapula, os calcis, os frontis		1	1	Senile gangrene		1	1
Caries of ribs and spine		1	1	Septicæmia		1	1
Chronic bronchitis		1	1	Tetanus		1	1
				Valvular disease of heart		1	1
				Total	8	110	118

The following table shows the number of married and unmarried women who gave birth to children in hospital during the year:

	White.	Colored.	Total.
Married	2	4	6
Unmarried	4	36	40
	6	40	46

The large percentage of deaths is readily accounted for when the character of the patients admitted and their diseases are considered. Many of the indigent sick are superstitious and ignorant of the truly benevolent character of a hospital, and often keep themselves away till too late to be benefited, and come in only to die and receive a decent burial, which they realize that their friends are unable to give them. Of the 118 deaths, 14 died within 48 hours after admission, 6 died on the day of admission. A glance at the table of diseases resulting fatally, will show that a large part of the deaths were from diseases generally regarded as incurable; such as consumption, cancer, and organic dropsies.

The large percentage of still-births is readily accounted for by the fact that the mother in such cases, has shown signs of serious disease, or indications of having been tampered with in order to obtain premature relief from her offspring.

It will be observed that in 40 of the 46 cases of confinement, the mothers were not married, and many of these were the second, third, fourth, and even fifth confinement of the same unmarried person. There is very little chagrin or mortification on the part of these mothers, and yet they are far from being abandoned and dissolute. The higher education has not yet reached them. There is no law in the District to reach them, nor are the partners of their guilt amenable to law—a circumstance very much to be deplored.

Religious exercises and chaplain services have been performed by theological students, licentiate preachers, who receive their board for their services.

All the articles of clothing and bedding used in the hospital, except shoes, hats, hose, coats, and blankets, are manufactured on the premises at a slight advance from the cost of the raw material.

The appropriation for the support of this hospital for the fiscal year ending June 30, 1878, was \$40,000. Two thousand of this was paid for rent, and two thousand more was subsequently appropriated for deficiency of rent, which is \$4,000 per annum. The morning report shows that 82,218 days of support have been afforded to patients during the year. Without the rent, this makes the daily cost of each patient for subsistences, clothing, nursing, and medicines, 46 cents per day.

It is believed that no governmental or eleemosynary institution in the District affords so good care and treatment, for the amount expended, as this hospital.

As evidence that the patients are well cared for here, I cite the fact that most of them, white and colored, when cured, leave the hospital with reluctance; and most of those who have once been treated here, when again overtaken by accident or disease, apply a second, third, fourth, and even a fifth time for admission.

The necessity for the continuance of this hospital is manifest from the constantly increasing number of applications for the admission of per-

sons suffering from accidents, from wounds, and from severe diseases. Not less than one hundred have come in here during the past year by recommendation of the police. In fact, this is the only general hospital, for the reception of all classes of patients, within the District. Many of the patients are non-residents, and must be provided for somewhere by the general government when they fall sick in this city. The location of the hospital is central and healthy. Not a case of malarial disease has been known to originate within the premises since they have been occupied for their present purposes.

Very respectfully, your obedient servant,

G. S. PALMER, M. D.,

Surgeon-in-Chief.

Hon. CARL SCHURZ,

Secretary of the Interior, Washington.

REPORT
OF
THE COLUMBIA HOSPITAL FOR WOMEN AND LYING-
IN ASYLUM.

COLUMBIA HOSPITAL FOR WOMEN
AND LYING-IN ASYLUM,
Washington, D. C., October 23, 1878.

SIR: The committee appointed from the board of directors of the Columbia Hospital for Women and Lying-in Asylum beg leave to transmit the annual reports of the surgeon in charge and advisory board of physicians and surgeons, together with the synopsis of the receipts and disbursements of the treasurer, the duly-qualified vouchers for which have been presented to the Treasury Department for settlement, and approved for three quarters of the past fiscal year ending June 30, 1878. The last quarter has not yet been audited, though the vouchers therefor have been presented as approved by the hospital committee on expenditures.

The report of the matron also is transmitted, and it is hoped that these records furnish abundant evidence of the care bestowed upon the inmates of this institution, and that the property of the government invested therein is judiciously managed and protected.

It is a source of much satisfaction to the directors that the mortality of the hospital during the past year has been so small, and that the results of operations, some of which are among the most severe and dangerous in surgery, have been so unusually successful.

During the fiscal year just past, certain charges against the surgeon in charge and the management of the hospital were filed in the Interior Department, and a committee of investigation appointed. It having been decided that the committee had no power to act, the board of directors deemed it necessary for the well-being of the hospital to appoint a committee consisting of the eight eminent physicians constituting the "advisory and consulting board of physicians and surgeons" of the hospital, with instructions and full powers to make a thorough and impartial inquiry into the truth of the allegations set forth in the charges presented to your department, and of all others subsequently furnished.

The committee appointed to make the inquiry thought proper to hold their sessions publicly, so that ample opportunity might be afforded and sufficient protection guaranteed all those preferring said charges. All evidence was taken under oath, and no testimony permitted to be given unless certified to in that manner.

The result of such full and searching investigation is embodied in a report signed by the committee unanimously, and submitted to the board

of directors at their special meeting held September 30, 1878, by the advisory and consulting board of physicians and surgeons, and which is herewith transmitted. The report was accompanied by an appendix containing a journal of the meetings of the committee and all the testimony taken under oath and reported verbatim by a stenographer, and now on file with the records of the hospital, open to inspection by all wishing to know the facts.

The report concludes in these words:

In carefully reviewing the testimony adduced, a work absolutely necessary in order to arrive at the result desired by the board of directors, the advisory board have had the conviction forced upon them that, not only are their conclusions as previously given entirely just in every particular, but that Dr. Murphy is entitled to the highest commendation for the fidelity and conscientious discharge of his duty; and further, the advisory board feel that they would have but illy performed their task should they fail to express their appreciation of the professional skill of Dr. Murphy, and their entire confidence in his ability to meet any emergency that may arise in an institution of this kind. In conclusion, the board feel themselves at liberty to state that, being more or less familiar with hospital affairs, they consider that the management of Columbia Hospital while under Dr. Murphy's charge compares favorably with that of any similar institution in the country; and they desire to express their unfeigned regret that persons should endeavor, through hearsay evidence or distorted impressions, to break down or impair, in any way, the usefulness of so noble a charity.

Respectfully submitted.

CHARLES H. CRAGIN, M. D.,
Secretary.

Hon. SECRETARY OF THE INTERIOR DEPARTMENT.

To the President and Board of Directors of the Columbia Hospital for Women and Lying-in Asylum:

GENTLEMEN: In presenting to your honorable body the twelfth annual report of the Columbia Hospital for Women and the Columbia Hospital Dispensary for the fiscal year ending June 30, 1878, there is much that deserves more than a passing notice.

During the past twelve months the hospital has been entirely free from any of the diseases usually occurring in lying-in asylums; no adult death being recorded in the obstetrical department of this institution for the period specified.

In the medical and surgical division of the hospital one death is mentioned as having occurred. The patient, a young girl aged 16, was admitted for the treatment of a disease peculiar to her sex. The symptoms she presented at the time of admission were those common to her affection and the prodromal stage of typhoid fever, which latter disease subsequently developed and ended in her death. Thus, in the treatment of 294 patients (see accompanying synopsis) 97 of whom were delivered, and on 24 of whom operations more or less severe were performed, we have only to report a single death, and that, too, from a disease which, strictly speaking, ought not to be reckoned in the hospital mortality.

The number of patients admitted during the year shows an increase of 44 over that of any previous year since the establishment of the institution, and this increase is of special significance when it is remembered that no case has been retained within the hospital for which provision is not made in the charter. Appended I present a list of the operations performed during the year, included in which will be found two cases of ovariectomy. The first operation was performed by the advice of the advisory and consulting physicians and surgeons at the house of the patient, who, though an inmate of the hospital for some time prior to the operation, preferred to be at home during that trying ordeal.

The second tumor was removed within the hospital, and, though "still in house" June 30, the time which has since elapsed enables me to state that the patient is now perfectly well. The object in here referring to these cases, a full history of which is elsewhere given, is to call attention to the fact that recovery was more rapid in the case of the patient who remained within the house; thus showing that those deleterious influences which are supposed so often to manifest themselves in hospitals were either entirely absent or completely counteracted by the precautions taken.

The dispensary service has afforded much relief to that large class of indigent females who, in the majority of instances, having large families either to support or take care of, are unable to seek admission into hospitals. The number treated, 485, during the year shows an increase of 98 over that of the preceding year.

By the request and direction of your honorable body an investigation into the management of the institution while under my charge has been undertaken and completed by the board of advisory physicians and surgeons. The result of their labors is embodied in their report, which has been submitted, and is now before you. No comments of mine are necessary further than to state, that no pains were spared to make the inquiry complete and searching in every particular, and that I am indebted to the gentlemen comprising that board for the fairness, impartiality, and courtesy which characterized their proceedings.

In conclusion, I wish to express my high appreciation of the services rendered by the advisory board, during the past year, in conducting the affairs of the hospital and dispensary. Their valuable counsel, their untiring zeal, and their friendly interest have, in a great measure, conduced to the past success and present favorable condition of the hospital.

It also affords me much pleasure to state that the nurses and employes have been faithful in the discharge of their duties, and that there is every reason to hope for a continuance of the present satisfactory condition of the hospital and its inmates.

Very respectfully, your obedient servant,

P. J. MURPHY,
Surgeon in Charge.

OCTOBER 16, 1878.

	Patients.
At date of last annual report there were in house.....	24
Admitted during the year.....	270
Treated during year in hospital.....	294
Discharged during the year.....	279
Number of patients in hospital at date.....	19

The daily average was for—

July	27.7	January	32.9
August	25.06	February	31.14
September.....	30.49	March.....	27.61
October.....	35.55	April.....	23.4
November	33.10	May.....	31.09
December	29.35	June	26.4
For the year, 29.48.			

Number of patients admitted—

During the year ending June 30, 1873	160
During the year ending June 30, 1874.....	179
During the year ending June 30, 1875.....	200
During the year ending June 30, 1876.....	222
During the year ending June 30, 1877.....	226
During the year ending June 30, 1878.....	270

Nativities.

Alabama	1	Rhode Island	1
Connecticut	2	Virginia.....	75
District of Columbia.....	43	Vermont	2
Florida.....	2	Brazil.....	1
Indiana	2	Canada.....	2
Illinois.....	2	England.....	3
Maryland	68	France.....	2
Massachusetts	2	Germany.....	7
Maine.....	1	Ireland.....	41
New York	20	Russia.....	1
North Carolina	2	Spain.....	1
New Hampshire.....	1		
Ohio.....	3	Total.....	294
Pennsylvania.....	9		

	Cured.	Improved.	Unrelieved.	Result unknown.	Transferred.	Died.	Removed.	Still in house.	Total.
Amenorrhea	7	14	3	2	.....	1	.....	.....	27
Adenoma mammae .....	.....	.....	.....	.....	.....	.....	.....	1	1
Angioma venosum uteri .....	.....	.....	.....	1	.....	.....	.....	.....	1
Bronchitis .....	.....	.....	.....	1	1	.....	.....	.....	2
Caruncula urethrae .....	.....	.....	.....	.....	.....	.....	.....	1	1
Cystitis	1	1	.....	.....	.....	.....	.....	2	4
Cervicitis	6	7	.....	1	.....	.....	.....	1	15
Carcinoma uteri .....	.....	2	2	.....	.....	.....	.....	.....	4
Dysmenorrhea	2	1	1	1	.....	.....	.....	.....	5
Displacements	6	10	2	.....	.....	.....	.....	.....	18
Cancer of breast .....	.....	.....	.....	.....	.....	.....	4	.....	4
Fibroids uteri	1	5	3	1	.....	.....	.....	1	11
Hysteria .....	.....	1	.....	1	.....	.....	.....	.....	2
Leucorrhoea	2	4	.....	.....	.....	.....	.....	2	8
Laceration of cervix	1	.....	.....	.....	.....	.....	.....	.....	1
Menorrhagia .....	.....	1	.....	.....	.....	.....	.....	.....	1
Mammitis .....	.....	2	.....	.....	.....	.....	.....	.....	2
Ovarian tumor	1	1	1	.....	.....	.....	.....	2	5
Ovaritis	1	.....	.....	.....	.....	.....	.....	.....	1
Pelvic cellulitis	7	9	.....	2	.....	.....	.....	.....	18
Polypus uteri	1	.....	.....	.....	.....	.....	.....	1	2
Metritis	9	10	1	2	1	.....	.....	2	25
Rectocele	1	.....	.....	.....	.....	.....	.....	.....	1
Rupture perinaeum	2	1	.....	.....	.....	.....	.....	.....	3
Threatened abortion	1*	.....	.....	.....	.....	.....	.....	.....	1
Vomiting of pregnancy .....	.....	1	.....	.....	.....	.....	.....	.....	1
Varicose ulcer	2	2	.....	.....	.....	.....	.....	.....	4
Vaginitis	3	.....	.....	.....	.....	.....	.....	.....	3
Vesico-vaginal fistula .....	.....	.....	1	.....	.....	.....	.....	.....	1
Total	54	72	14	12	2	1	4	13	122

* Prevented.

Obstetrical cases.

Delivered before June 30, 1877, but not discharged till after that date	9
Delivered during the year	97
Left before delivery	13
Remaining in house undelivered	3
Multiparae 44, Primiparae 78	122
Cases of twins	3
Case of triplets	1
Still births	3
Children died	7
Mothers died	0

The triplets and one case of twins were premature, and died within twelve hours. Of the other two children lost, one was premature, the other died from gastro-enteric catarrh.

The following is a list of the principal operations performed during the year on patients, all of whom were suffering from some disease peculiar to women :

	Cured.	Relieved.	Unrelieved.
Restoration of perinæum	4	.....	.....
Paracentesis abdominis .....	.....	2	.....
Rectocele	1	.....	.....
Hæmorrhoids	1	.....	.....
Epulis	1	.....	.....
Fibro-cystic tumor of neck	1	.....	.....
Laceration of cervix uteri	1	.....	.....
Fibro-cystic tumor of eyelid	1	.....	.....
Scirrhus mammae	4	.....	.....
Vesico-vaginal fistula .....	.....	.....	1
Tumor from gluteus	1	.....	.....
Procidentia uteri	1	.....	.....
Polypus uteri	3	.....	.....
Ovarian tumor	2	.....	.....
Total	21	2	1

Report of Columbia Hospital and Dispensary, Washington, D. C., for the year ending June 30, 1878.

	Diseases of females.		Total.
	Hospital.	Dispensary.	
Number of patients under treatment at date of last report	24	16	40
Number of patients received during year	270	469	739
Whole number treated during year	294	485	779
Number cured	161	284	445
Number relieved	72	93	165
Number died	1	.....	1
Result unknown	39	22	61
Number sent to hospital	2	59	61
Number of prescriptions compounded during the year	1,793	912	2,705
Number under treatment at date of this report	19	27	46

To the Board of Directors of Columbia Hospital :

GENTLEMEN: In accordance with the requirements of your regulations, the advisory and consulting board beg leave to submit the following as their report for the year ending September, 1878:

The present board organized at a meeting held September 29, 1877, by electing Dr. Joshua A. Ritchie chairman; J. O. Stanton, M. D., secretary; and Louis Mackall, M. D., as the representative to your body. It was also arranged at this meeting that two members of the board should in turn be on duty as weekly attendants to the hospital, and that their time of service should continue for three months.

The service of the quarter beginning October 1 devolved upon Drs. Lincoln and Stanton; the duties of the second, upon Drs. Ritchie and Yarrow; Drs. Mackall and Sowers were in attendance during the third. During the past three months the duties have been performed by Drs. Reyburn and Young. A reference to the weekly reports will show that generally two and always one of the staff made weekly visits, and thoroughly examined into the condition of both patients and buildings. In addition to

the regular attendance, the members of the board were frequently present at the hospital. The result of their observations enables them to refer in commendation to the good management of the institution during the past year.

At the instance of the surgeon in charge the staff held thirty-seven meetings at the hospital for the purpose of consultation in grave cases, and to render assistance when operations were required.

It is a source of great gratification to this board to be able to present a most satisfactory report of the sanitary condition of the hospital throughout the year, a remarkable absence of fatality, and the excellent results in those cases operated on.

In order to carry out the requirements of the law in reference to the out-door department, the following resolution was adopted February 8, 1878:

Resolved, That, after the term of inspection service of the hospital expires, the members of the advisory board on duty shall assume charge of the out-door department in connection with the surgeon in charge, and in case any member shall decline to serve in the out-door department, such vacancy shall be filled by election at a meeting of the board after due notification.

In accordance with this resolution the duties of the department referred to were performed by different members of the staff, together with Dr. Murphy, by a tri-weekly attendance. The board thinks it unnecessary to specify the work accomplished, as doubtless it will be fully laid before you in the report of the surgeon in charge.

In addition to the professional duties devolving upon the staff, your honorable body saw fit to impose an additional responsibility—that of investigating certain charges reflecting upon the professional and private character of the surgeon in charge, and also of mismanagement of the affairs of the institution.

The intimate and friendly relations which we held with Dr. Murphy rendered this a very delicate and trying position, and one which we would have gladly renounced; but conceiving that our first duty was due to the hospital, we entered upon the work, and endeavored to make a thorough and impartial investigation.

While the year has passed without any pressing need for the detached buildings recommended by a previous board, yet we feel that at any moment an exigency may arise whereby many lives may be jeopardized, unless means should be provided for the removal of cases of puerperal infectious diseases out of the main buildings; we therefore feel called upon to bring the subject again to your consideration, and express the hope that Congress at the next session may make an appropriation for the erection of said buildings.

Very respectfully,

JOSHUA A. RITCHIE, M. D.,
President.

J. O. STANTON, M. D.,
Secretary.

Z. T. SOWERS, M. D.

N. S. LINCOLN, M. D.

LOUIS MACKALL, M. D.

JAMES T. YOUNG, M. D.

H. C. YARROW, M. D.

ROBERT REYBURN, M. D.

To the Board of Directors of the Columbia Hospital for Women and Lying-in Asylum:

GENTLEMEN: I have the honor to submit the yearly account of the disbursements for the fiscal year ending June 30, 1878. The vouchers for the three first quarters have been audited by the Treasury Department and approved. For the last quarter the vouchers have been submitted, but are not as yet approved.

The fund derived from pay patients shows a balance on hand at date of \$3,527.06.

JOHN T. MITCHELL,
Treasurer.

SEPTEMBER 30, 1878.

Amount of appropriations for the support of Columbia Hospital for the			
year ending June 30, 1878	.....		\$18,000 00
Amount of special appropriations	.....		2,000 00
1877.			
July 20. Draft on United States Treasury	.....	\$4,500 00	
Sept. 30. Vouchers to date	.....	3,413 92	
30. Balance on hand	.....		1,086 08
30. Balance on hand	.....	1,086 08	
Oct. 26. Draft on United States Treasury	.....	5,000 00	
			6,086 08

COLUMBIA HOSPITAL FOR WOMEN AND LYING-IN ASYLUM. 1059

	Brought forward.....	\$6,086 08	
1877.			
Dec. 31.	Vouchers to date.....	4,043 91	
	31. Balance on hand		2,042 17
	31. Balance on hand	2,042 17	
1878.			
Mar. 7.	Draft on United States Treasury	6,500 00	
		8,542 17	
	31. Vouchers to date.	5,093 33	
	31. Balance on hand		3,448 4
	31. Balance on hand	3,448 84	
June 29.	Draft on United States Treasury	2,000 00	
		5,448 84	
	30. Vouchers to date.....	5,436 44	
	30. Balance on hand		12 40
1877.	Special appropriation.....		2,000 00
Sept. 18.	Smith, Berge & Co.....	1,070 10	
Nov. 9.	Smith, Berge & Co.....	110 00	
1878.			
June 19.	W. W. H. Robinson & Co.....	790 00	
			1,970 10
	Balance on hand.....		29 90
	Amount received from pay-patients at Columbia Hos- pital:		
1877.			
June 30.	Balance on hand.....	3,905 00	
1878.			
June 30.	Amount received to date.....	2,121 00	
		6,026 00	
	30. Vouchers to date.....	2,498 94	
	Balance on hand.....		3,527 06

Estimate of appropriations required for the service of the fiscal year ending June 30, 1880,
by the Columbia Hospital for Women and Lying-in Asylum.

General object.	Detailed objects of expenditure, and explanations.	Estimated amount which will be re- quired for each detailed object of expenditure.	Total amount to be appropriated un- der each head of appropriation.
For support of Columbia Hospital for Women and Lying-in Asylum, over and above the probable amount re- ceived from pay-patients.	For current expenses, subsistence, medicines, wages of nurses, em- ployés, and general repairs on build- ing and grounds.	\$15,000 00	\$15,000 00
For salaries	Surgeon in charge	1,800 00	} 2,400 00
Do	Matron	600 00	
For laundry complete, which is abso- lutely necessary, there being no build- ing or apartment on the grounds that is suitable for the purpose. The old frame structure now used is in a dilap- idated condition, unsafe to use, and liable to fire, and greatly endangering adjoining buildings. This appropria- tion to be made immediately available.		3,500 00	3,500 00

Approved.

JOHN T. MITCHELL,
Treasurer.
P. J. MURPHY,
Surgeon in Charge.

COLUMBIA HOSPITAL FOR WOMEN AND LYING-IN ASYLUM,
Washington, D. C., October 14, 1878.

To the Board of Directors of the Columbia Hospital for Women and Lying-in Asylum:

GENTLEMEN: I have the honor to report that all drugs and medicines received during the past fiscal year ending June 30, 1878, excepting such stock as is at present on hand, have been used for the benefit of the hospital and dispensary.

All books, surgical instruments, appliances, &c., received during the year and those already on hand, excepting such as have been worn out or otherwise rendered unfit for use, are in good condition.

The records submitted for inspection contain a correct inventory of all the hospital property under my immediate charge.

Very respectfully, your obedient servant,

P. J. MURPHY,
Surgeon in Charge.

P. J. MURPHY, M. D.,
Surgeon in charge Columbia Hospital:

SIR: In compliance with the by-laws of the institution, I beg leave to submit my annual report for the fiscal year ending June 30, 1878.

All articles of furniture, kitchen and dining-room ware, cooking utensils, &c., on hand June 30, 1877, and such as have been received during the past year, unless worn out or rendered unfit for use, are in good condition, a full inventory of which is kept in the accompanying record.

All the mattresses and pillows have been thoroughly cleansed and remade, without additional expense, and are in good order. The supply of table and bed linen, spreads, blankets, &c., has been replenished from time to time as necessity demanded, and such of these articles as no longer served the purpose for which they were intended, have been converted to other use.

The number of pay patients admitted during the year has been more than double that of any previous year, and the amount received from such source and paid over to the treasurer is \$2,121.

I have to thank most cordially several beneficent ladies for their kindness in sending articles of clothing, old linen, books, magazines, &c., for the use and amusement of the patients, and am especially indebted to the White House for the many contributions of flowers for the wards of the hospital during the summer months.

Very respectfully,

A. L. S. THOMBS,
Matron.

COLUMBIA HOSPITAL FOR WOMEN AND LYING-IN ASYLUM,
Washington, D. C., November 1, 1878.

To the Board of Directors Columbia Hospital:

The undersigned, members of the committee on personal property, have inspected and examined the personal effects of the hospital, compared the inventories of the matron and surgeon in charge, and find a proper correspondence with the same.

F. A. ASHFORD.
WILLIAM PARET.

1

REPORT OF THE BOARD OF VISITORS

TWENTY-THIRD ANNUAL REPORT

OF THE

BOARD OF VISITORS OF THE GOVERNMENT HOSPITAL FOR THE
INSANE.

OFFICERS OF THE GOVERNMENT HOSPITAL FOR THE INSANE.

OCTOBER 1, 1878.

NON-RESIDENT OFFICERS OF THE HOSPITAL.

VISITORS.

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JOSEPH M. TONER, M. D.	CHARLES WORTHINGTON, Esq.
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A. H. WITMER, M. D., *Second Assistant Physician.*
MAURICE J. STACK, M. D., *Third Assistant Physician.*
SAMUEL B. LYON, *Chief Clerk and Purveyor.*

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REPORT OF THE BOARD OF VISITORS.

GOVERNMENT HOSPITAL FOR THE INSANE,
Near Washington, D. C., October 1, 1878.

SIR: The Board of Visitors have the honor to submit this their twenty-third annual report.

The following tables give a synopsis of the operations of the hospital during the year 1877-'78:

Summary.

	Males.	Females.	Totals.
Remaining June 30, 1877	583	182	765
Admitted during the year ending June 30, 1878.....	138	44	182
Whole number under treatment.....	721	226	947
Discharged—Recovered.....	49	11	60
Improved	32	9	41
Unimproved	3	4	7
Died.....	37	9	46
Whole number discharged	121	33	154
Remaining June 30, 1878.....	600	193	793

Admissions and discharges.

				Males.		Females.		Totals.	
REMAINING JUNE 30, 1877.									
Army	{	White ...	394	399		3	3	402	
	}	Colored..	5			0			
Navy	{	White ...	39	39				39	
	}	Colored..	0						
Civil life.....	{	White ...	115	145	583	140	179	324	765
	}	Colored..	30			39			
							182		
ADMITTED DURING THE YEAR 1877-'78.									
Army	{	White ...	62	65		1	1	66	
	}	Colored..	3			0			
Navy	{	White ...	9	9				9	
	}	Colored..	0						
Civil life.....	{	White ...	47	64	138	26	43	107	182
	}	Colored..	17			17			
							44		

Admissions and discharges—Continued.

			Males.		Females.		Totals.	
UNDER TREATMENT DURING THE YEAR 1877-'78.								
Army	{ White ...	456	464		4	4	468	
	{ Colored..	8			0			
Navy	{ White ...	48	48				48	
	{ Colored..	0						
Civil life.....	{ White ...	162	209		166	222	431	947
	{ Colored..	47			56			
						226		
DISCHARGED DURING THE YEAR 1877-'78.								
Army	{ White ...	18	19		0	0	19	
	{ Colored..	1			0			
Navy	{ White ...	2	2				2	
	{ Colored..	0						
Civil life.....	{ White ...	23	28		8	11	39	60
	{ Colored..	5			3			
						11		
DECEASED DURING THE YEAR 1877-'78.								
Army	{ White ...	22	23		0	0	23	
	{ Colored..	1			0			
Navy	{ White ...	3	3				3	
	{ Colored..	0						
Civil life.....	{ White ...	7	11		6	9	20	46
	{ Colored..	4			3			
						9		
						9		
						20		
REMAINING JUNE 30, 1878.								
Army	{ White ...	401	407		4	4	411	
	{ Colored..	6			0			
Navy	{ White ...	41	41				41	
	{ Colored..	0						
Civil life.....	{ White ...	115	152		140	189	341	793
	{ Colored..	37			49			
						193		

There were fourteen less persons than cases under treatment in the course of the year, by reason of eight readmissions and six transfers from the private to the indigent list, by order of the Commissioners of the District of Columbia.

Duration of the mental disease of those who died.

Less than three months	1
Three to six months	2
One year	8
Two years	6
Three years	10
Four years	7
Five years	1
Ten years	3
Twelve years	4
Eighteen years	1
Twenty-four years	2
Sixty-five years	1
Total	46

Duration of disease on admission.

				Males.		Females.		Totals.	
LESS THAN SIX MONTHS.									
Army	{	White ...	25	26		1	1	27	
		Colored..	1			0			
Navy	{	White ...	7	7				7	
		Colored..	0						
Civil life	{	White ...	25	37	70	10	14	51	85
		Colored..	12			4			
							15		
LESS THAN ONE YEAR.									
Army	{	White ...	8	9				9	
		Colored..	1						
Navy	{	White ...	1	1				1	
		Colored..	0						
Civil life	{	White ...	2	3	13	2	4	7	17
		Colored..	1			2			
							4		
ONE TO TWO YEARS.									
Army	{	White ...	14	15				15	
		Colored..	1						
Civil life	{	White ...	9	10	25	4	9	19	34
		Colored..	1			5			
							9		
OVER TWO YEARS.									
Army	{	White ...	6	6				6	
		Colored..	0						
Civil life	{	White ...	3	4	10	0	3	7	13
		Colored..	1			3			
							3		

Duration of disease on admission—Continued.

		Males.			Females.			Totals.	
OVER THREE YEARS.									
Army.....	{ White ...	2							
	{ Colored..	0							
			2					2	
Civil life.....	{ White ...	1			1				
	{ Colored..	1			1				
			2			2		4	
				4			2		6
OVER FOUR YEARS.									
Army.....	{ White ...	1							
	{ Colored..	0							
			1					1	
Navy.....	{ White ...	1							
	{ Colored..	0							
			1					1	
Civil life.....	{ White ...	1			1				
	{ Colored..	0			0				
			1			1		2	
				3			1		4
FIVE TO TEN YEARS.									
Army.....	{ White ...	2							
	{ Colored..	0							
			2					2	
Civil life.....	{ White ...	4			2				
	{ Colored..	0			1				
			4			3		7	
				6			3		9
TEN TO TWENTY YEARS.									
Army.....	{ White ...	3							
	{ Colored..	0							
			3					3	
Civil life.....	{ White ...	0			3				
	{ Colored..	0			1				
			0			4		4	
				3			4		7
OVER TWENTY YEARS.									
Civil life.....	{ White ...	2			1				
	{ Colored..	1			0				
			3			1		4	
				3			1		4
NOT INSANE.									
Army.....	White...	1							
			1					1	
				1					1

Table showing the nativity, as far as could be ascertained, of the 4,384 persons treated.

Native born.		Foreign born.	
District of Columbia.....	445	Ireland.....	931
New York.....	332	Germany.....	634
Maryland.....	281	England.....	101
Virginia.....	279	France.....	47
Pennsylvania.....	238	Canada.....	36
Ohio.....	124	Scotland.....	32
Massachusetts.....	100	Switzerland.....	15
Maine.....	48	Italy.....	17
Illinois.....	41	Denmark.....	11
Connecticut.....	38	Norway.....	10
New Hampshire.....	35	Sweden.....	10
Indiana.....	35	Poland.....	8
Kentucky.....	30	Russia.....	6
Michigan.....	30	Austria.....	5
New Jersey.....	32	Nova Scotia.....	6
Tennessee.....	22	Spain.....	4
Wisconsin.....	19	Holland.....	6
Vermont.....	20	Wales.....	3
Missouri.....	18	Portugal.....	3
Rhode Island.....	13	Hungary.....	4
Delaware.....	13	Mexico.....	3
North Carolina.....	16	Saxony.....	4
Alabama.....	6	Malta.....	3
South Carolina.....	6	Belgium.....	2
Iowa.....	4	Buenos Ayres.....	1
Georgia.....	8	Costa Rica.....	1
Mississippi.....	8	Bavaria.....	2
Louisiana.....	4	Sicily.....	1
West Virginia.....	5	British Columbia.....	1
Kansas.....	2	East Indies (British).....	1
Florida.....	2	West Indies (British).....	3
Texas.....	3	West Indies (Hayti).....	1
California.....	2	New Brunswick.....	1
Choctaw Nation.....	2	Cuba.....	1
Colorado.....	1	China.....	1
Arkansas.....	1	Coast of Africa.....	1
Total.....	2,263	Total.....	1,916
Native born.....		2,263	
Foreign born.....		1,916	
Unknown.....		205	
Total.....		4,384	

Form of disease in those admitted.

	Total during the year.	Total from the beginning.
Mania, acute.....	40	1,723
Mania, chronic.....	37	669
Melancholia.....	47	460
Dementia.....	33	1,188
Dementia, senile.....	5	43
Paresis.....	7	34
Dipsomania.....	10	329
Typhomania (Bell's disease).....	—	2
Kleptomania.....	—	3
Nymphomania.....	—	3
Imbecility.....	2	28
Opium-eaters.....	—	8
Not insane.....	1	3
Totals.....	182	4,493

Complications in those admitted.

	Total during the year.	Total from the beginning.
Epilepsy	9	229
Paralysis	2	101
Suicidal disposition	11	117
Homicidal disposition	4	40
Periodicity	8	162
Puerperal state	—	36
Catalepsy	—	7
Nostalgia	—	25
Post febrile condition	—	39

As far as could be ascertained, the volunteers of the Army and Navy under treatment during the year ending June 30, 1878, entered the service from the following States:

New York	47
Ohio	26
Pennsylvania	16
Indiana	20
Michigan	13
Illinois	16
Wisconsin	11
Missouri	8
Connecticut	6
New Hampshire	3
Vermont	1
Maryland	6
Massachusetts	8
New Jersey	5
Maine	3
Tennessee	1
Nebraska	1
Delaware	1
Minnesota	2
Iowa	2
North Carolina	1
California	1
New Mexico	1
Kentucky	2
Louisiana	1
West Virginia	2
Unknown	4
Total	208

Tabular statement of the time of life at which the 4,384 persons treated since the opening of the institution became insane.

Under 10 years.....	64
Between 10 and 15 years	46
Between 15 and 20 years.....	277
Between 20 and 25 years.....	845
Between 25 and 30 years.....	935
Between 30 and 35 years.....	776
Between 35 and 40 years.....	483
Between 40 and 45 years.....	319
Between 45 and 50 years.....	210
Between 50 and 60 years.....	200
Between 60 and 70 years.....	104
Between 70 and 80 years.....	36
Between 80 and 90 years.....	4
Unknown.....	83
Not insane.....	2
Total	4,384

Private patients.

There were at the beginning of the year..	7 males, 13 females	20
Received during the year	6 " 3 "	9
Whole number under treatment	13 " 16 "	29
Discharged during the year.....	8 " 9 "	17
Remaining at the end of the year	5 " 7 "	12

Table showing the history of the annual admissions, since the opening of the hospital, with the discharges and deaths, and the number of each year remaining June 30, 1878.

Years.	Admitted.				Of each year's discharged and died in 1878.												Total discharged and died of each year's admissions.												Remaining of each year's admission June 30, 1878.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	New cases.		Relaps'd cases.		Recovered.				Improved.				Unimprov'd.				Died.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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	Male.	Female.	Male.	Female.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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The close of the year finds us with a total of 793 patients under treatment, while the average number resident during the year, 781, has not been equalled since the opening of the hospital. Notwithstanding that we have now more than 800 inmates, with accommodations for only 563, the health of the household has continued excellent. The per cent. of deaths on the whole number under treatment, $4\frac{85}{100}$ per cent., is, with the exception of a single year, the lowest recorded here. The forced ventilation by the fan, maintained day and night throughout the year, has no doubt contributed to the health as well as the comfort of the inmates.

The overcrowding has been the notable feature of the year; and so it is that the government hospital, which should be in a position to show to other nations the liberal provision that America makes for her defenders when they become insane, is crowded like an almshouse, and while this hospital has served as a model for one building in the British Provinces and another in Australia, it is now in danger of remaining stationary or retrograding, when it might stand first in everything that pertains to the most successful care and management of the insane. Surely the United States in her charities can afford to take no second place—give us room and she shall not.

Only twelve persons admitted as pay patients on private bond remained in the hospital at the close of the year. In view of the crowded condition of the wards it has been thought best to request friends to remove patients of this class now resident in the hospital to some other institution wherever this could be done without special hardship to the patients themselves; also, we have declined to receive patients belonging in the District who were able to defray their expenses elsewhere, unless the character of the insanity was such as to render some immediate provision necessary, and it seemed a plain dictate of humanity to make room for them temporarily.

The products of the farm and garden, with their estimated values, are given below:

Apples, 54 bushels, at 75 cents	\$40 50
Asparagus, 952 bunches, at 6 cents	57 12
Beans (Lima), 174 bushels, at \$1.50	261 00
Beans (string), 118 bushels, at \$1.25	147 50
Beef (fresh), 3,243 pounds, at 8 cents	259 44
Beet-greens, 190 bushels, at \$1	190 00
Beets, 402 bushels, at 50 cents	201 00
Beets, 2,858 bunches, at 3 cents	85 74
Blackberries, 79 quarts, at 10 cents	7 90
Cabbage, 31,132 heads, at 6 cents	1,867 92
Cabbage-sprouts, 16½ barrels, at \$1	16 50
Cantaloupes, 2,515, at 4 cents	100 60
Carrots, 1,167 bunches, at 2 cents	23 34
Celery, 6,027 heads, at 4 cents	241 08
Cherries, 10 bushels, at \$3	30 00
Chickens, 12 dozen, at \$5	60 00
Corn (green), 1,356 dozen ears, at 10 cents	135 60
Cucumbers, 3,533, at 1 cent	35 33
Cucumbers (pickle), 4,000, at 1 cent	40 00
Currants, 48 quarts, at 10 cents	4 80
Eggs, 240 dozen, at 18 cents	43 20
Figs, 112 quarts, at 20 cents	22 40
Geese, 26, at 75 cents	19 50
Gooseberries, 33 quarts, at 12 cents	3 96
Grapes, 3,971 pounds, at 6 cents	238 26
Kale, 907 bushels, at 30 cents	272 10
Lamb, 255 pounds, at 15 cents	38 25
Lettuce, 7,717 heads, at 2 cents	154 34
Milk, 18,939 gallons, at 28 cents	5,302 92

Okra, 268 quarts, at 4 cents.....	\$10 72
Onions, 76 bushels, at \$2.....	152 00
Parsley, 824 bunches, at 3 cents.....	24 72
Parsnips, 65 bushels, at 75 cents.....	48 75
Pigeons, 75, at 25 cents.....	18 75
Peppers, 1,834 bunches, at 5 cents.....	91 70
Pease, 513 bushels, at \$1.25.....	641 25
Pork, 11,819 pounds, at 7 cents.....	827 33
Potatoes (Irish), 893 bushels, at 75 cents.....	669 75
Pumpkins, 2,299, at 3 cents.....	68 97
Peaches, 16 bushels, at \$1.....	16 00
Quinces, 20 bushels, at \$3.....	60 00
Radishes, 7,132 bunches, at 3 cents.....	213 96
Radishes (greens), 114 bushels, at 50 cents.....	57 00
Raspberries, 35 quarts, 10 cents.....	3 50
Rhubarb, 74 bunches, at 8 cents.....	5 92
Spinach, 338 bushels, at 75 cents.....	253 50
Sage, 347 bunches, at 5 cents.....	17 35
Squash (summer), 6,816, at 1 cent.....	68 16
Strawberries, 485 quarts, at 8 cents.....	38 80
Tomatoes, 484 bushels, at 75 cents.....	363 00
Turkeys, 6, at \$1.50.....	9 00
Turnips, 110 bushels, at 50 cents.....	55 00
Veal, 655 pounds, at 12 cents.....	78 60
Watermelons, 788, at 10 cents.....	78 80
Keeping 9 horses for hospital use.....	1,650 00
	15,422 83

The following products, having been consumed on the farm, are not included in the foregoing table:

Grass (pasturage).....	\$800 00
Hay (grass), 300 tons, at \$10.....	3,000 00
Hay (rye), 20 tons, at \$10.....	200 00
Oats in straw, 8 tons, at \$10.....	80 00
Fodder-corn (dry), 40 tons, at \$8.....	320 00
Broadcast corn, 12 acres, at \$30.....	360 00
Mangel-wurzel, 186 tons, at \$15.....	2,790 00
Corn (shelled), 995 bushels, at 60 cents.....	597 00
Grass, oats, and rye (cut green), 10 acres, at \$25.....	250 00
Ruta-bagas, 50 bushels, at 50 cents.....	25 00
	8,422 00

The table of farm and garden products shows that the cultivation of the soil has been attended with satisfactory results, but, prices having ruled low throughout the year, the estimated values will be found somewhat below those of previous years.

There is no doubt but our agricultural lands, though a hard and impoverished soil when first purchased for the government, are now fairly productive. A great amount of labor and fertilizers has been necessary to bring about this result, but the labor, so far as it has been that of the inmates, should be carried to the credit rather than the debit of the farm. There is no question about the value of labor in the treatment and care of the insane, and the varied work of a farm and garden seems admirably suited for the employment of many whose disease is of a chronic type. A struggle with the stubborn glebe by day is wonderfully conducive to good digestion and a quiet sleep at night. This hospital is fortunate in the possession of upwards of four hundred acres of land; of this a considerable portion, diversified with picturesque ravines and wooded slopes, is unsuited for cultivation, and will always remain a ramble and pleasure-ground for the recreation of the inmates. The grounds immediately surrounding the hospital buildings are laid out with walks and drives through lawns which have been planted with

trees, with here and there groups of shrubs and flowers. The quiet beauty of these surroundings, heightened as it is by the glimpses of the river, with vistas of the city and Capitol beyond, make it one of the charming spots for which the vicinity of Washington is famous, and one well named by the first settlers in its secluded loveliness, "Saint Elizabeth."

There still remains, after due allowance for uncultivated portions and pleasure grounds, more than two hundred acres of arable land belonging to the United States connected with the hospital. The primary purpose of a large tract of land attached to a hospital for the insane is to afford abundant opportunity to its inmates for out-door labor and recreation. Only second to this is its importance as a dairy farm for the production of milk. As a rule, there is no better food for the aged, the feeble, and those broken down with chronic disease than fresh sweet milk, and nothing is more readily administered or more willingly taken in the acute forms of insanity. In a hospital you can hardly have too much of it, and this has long been noted for its fine herd of Alderneys and the richness of its milk. We are year by year increasing the supply, our hay-fields are extensive, the white clover seems indigenous to these hillsides, and as this burns away in summer we devote many acres to the growth of green fodder crops for our milch cows, making our milk supply of the first importance, and we mean that its use shall be practically unlimited in the house, second only to that of water.

Next to the supply of milk we consider that a hospital farm should be made to produce an abundance and variety of vegetables for its inmates. Excepting potatoes and rice, every hospital for the insane should grow its own vegetables. To feed a thousand mouths requires no small quantity of garden produce. We are every year devoting more acres to the different kinds of vegetables, and the variety that we have thus been able to add to the bill of fare is very gratifying to our household. Wherever the latitude will admit, hospital grounds should give their inmates that most luscious of all desserts, ripe, fresh fruit. The location and climate of Washington, a happy mean between the icy winds of the North and the burning heat of the Gulf States, is very favorable to the production of a great variety of fruits. The vineyard already yields an abundant supply of the best varieties of out-door grapes and the crop is increasing; our cherries have long been famous; peaches and pears that are unsurpassed are easily grown in this region, and we have orchards recently planted; our experience with the blue fig has been very favorable; with a little protection in winter the trees will usually produce an abundant crop of this very palatable fruit, and we shall extend our plantation with a view of supplying the whole house. As the native diospyros grows abundantly in our woods, and the fruit is appreciated by our people, there is good reason to suppose that the Japanese varieties now being introduced in this country will be a valuable addition to the wealth of our orchards, so that from the first strawberries of the spring till the frosts sweeten the persimmons in the fall, there shall not be wanting some fresh fruit for our tables.

Such are the uses of a hospital farm. We believe our land now in a condition to be fairly remunerative, and that pecuniarily it is a good investment; but even if it were not, the hospital is immeasurably richer in everything that goes to make up a curative home for the insane by its possession, and by being located in the midst of green fields and surrounded by all that varied but quiet life that so abounds on a country farm. Is the farm profitable? We should as soon think of estimating the exact cost of the rosebuds that brighten the sick one's chamber as

to question whether the apples that had been a delight to our inmates from their first spring blossoming till they made our trees golden in autumn and were eaten at last, might not have been purchased cheaper by the barrel in the market. "The life is more than meat."

The current expenditures and receipts of the hospital for the year were as follows:

EXPENDITURES.

Expended for flour, crackers, &c.....	\$14,315 51
Expended for butter, cheese, and eggs.....	8,794 50
Expended for meats besides those raised at the hospital.....	23,178 83
Expended for poultry, fish, and marketing.....	3,259 22
Expended for groceries and ice.....	20,287 48
Expended for potatoes and other vegetables.....	2,194 96
Expended for supplies to farm and stock.....	2,302 22
Expended for feed for cows and other stock.....	4,112 50
Expended for repairs and improvements on buildings, cooking, heating, and lighting apparatus, water supply, farm and garden, lands and roads....	8,702 11
Expended for repairs of vehicles, harness, horseshoeing, &c.....	1,846 31
Expended for furniture, bedding, crockery, &c.....	7,515 75
Expended for boots, shoes, and findings.....	842 09
Expended for dry goods and clothing.....	12,288 77
Expended for books, stationery, printing, and postage.....	1,539 83
Expended for fuel and lights.....	7,217 00
Refunded to pay-patients.....	336 78
Expended for returning eloped patients.....	70 00
Expended for medical and surgical supplies.....	2,032 05
Expended for amusement of patients.....	187 12
Expended for miscellaneous supplies.....	80 00
Expended for house rent.....	20 83
Expended for salaries and wages.....	53,152 66
	174,276 52

RECEIPTS.

From Treasurer United States, support.....	\$145,000 00
From Treasurer United States, deficiency.....	9,583 00
From private patients, for board.....	19,693 52
	174,276 52

The above table of expenditures covers all the expenses of the hospital for the year, including the care of grounds and buildings as well as the care and treatment of a daily average of seven hundred and eighty-one patients, requiring an average of one attendant to every ten patients, exclusive of watchmen, out-door attendants and other employes, all of whom have directly or indirectly more or less care of the inmates.

The estimates for the year ending June 30, 1880, are as follows:

1. For the support, clothing, and treatment in Government Hospital for the Insane of the insane of the Army and Navy, Marine Corps, and revenue-cutter service, and of all persons who have become insane since their entry into the military or naval service of the United States and are indigent, and of the indigent insane of the District of Columbia \$178,750.

The number of patients under treatment in hospital June 30, 1878, was 792. Since that date the number of admissions has been unusually large and though the number of discharges has also been large it has been found impossible to prevent a gradual increase in the number of inmates in the hospital, so that on the 1st of September, 1878, the whole number in the house was 805. We shall probably be called upon to provide for 850 inmates before the 1st of July, 1879, the commencement of the fiscal year for which this appropriation is asked. Estimating the cost of support of each patient at \$225 per annum, exclusive of the value of the

products of the farm and garden above the cost of their production, the total cost for 850 patients for one year is \$191,250.

The act of Congress making appropriation for the hospital for the year 1877-'78 provides that hereafter the authorities of the District of Columbia shall pay one-half of the expense of supporting the indigent insane of the District admitted after July 1, 1876. It is estimated that one-half the cost of supporting that class for the year 1879-'80 will be \$12,500, which, deducted from \$191,250, leaves \$178,750 to be appropriated by Congress.

In the act making the appropriation for the hospital for the year 1878-'79 provision is made that not exceeding one thousand dollars of the appropriation for support may be expended to defray the expense of removal of patients to their friends. The result of this has already been so satisfactory that it is recommended that this provision be continued in future appropriations.

2. For general repairs and improvements, \$10,000.

The best economy in the care of the extensive buildings and grounds of the hospital requires the annual expenditure of at least ten thousand dollars (less than two per cent. of their original cost) for the preservation of the buildings and the gradual development and improvement of the grounds.

3. For airing courts, for the recreation of the inmates, for the completion of the rooms in the upper story of the bakery, for changing a portion of the roof and providing additional accommodations for employes in the attic story of the hospital building, and for hay-barracks and the protection of farm wagons and implements, \$10,500.

The battlements and roofs, especially of the sections nearest the center building, are showing signs of decay, and require to be renewed. It is thought that this is a most favorable opportunity, by changing to a mansard roof, at a trifling expense above that needed for the repair of the old, to provide suitable accommodations for the female domestics, a provision that has become imperatively necessary. A little expense for partitions and plaster in the second story of the bakery will furnish a number of rooms for the farm laborers, whose present quarters seriously encroach on room originally designed and now much needed for the accommodation of patients. Enlarged airing courts are required for the west wing, also one to enable that class of the female patients whose condition does not admit of their walking about the public grounds to enjoy themselves in the open air and sunlight.

The increasing productiveness of the hospital farm renders necessary an enlarged provision for the storage of crops. We should have a hay-barrack large enough to contain all the hay that is now stacked and liable to be injured or stolen; also a tool-house for the wagons and agricultural implements, now exposed to the weather.

It is believed that the comparatively small sum asked will enable us to complete these very important works.

4. For a fire-pump and additional pipe and hose to complete the provision against fire, \$3,500.

The neglect to provide for these unfortunate wards of the nation suitable and complete protection in case of fire would be nothing less than crime. The limited appropriation made at the last session of Congress has been faithfully expended for the objects named in the appropriation bill, but is quite inadequate to the complete arrangement of stand-pipe and hose that the protection of the buildings requires, and which was contemplated when the original estimate of \$5,000 was made.

5. For reservoirs and filter-beds to provide pure filtered water for the

supply of the hospital, including pipes and a tank in the tower for high service, \$9,500.

An unlimited supply of pure water throughout the entire hospital is a prime necessity. There are three springs of excellent water on the hospital grounds, from which (by the somewhat primitive method of a procession of inmates with buckets) the water for table use is now obtained; the water used in the hospital for all other purposes is pumped from the Anacostia River. The Board of Visitors, in their report for 1874, call attention to the fact that the water is often "abominably dirty." They have not overstated the fact. By sinking a well near the river bank some of the most palpable impurities have been eliminated, but before the water supply can be made at all satisfactory for laundry and cooking purposes it will be necessary to construct on the hospital plateau a series of depositing reservoirs with intervening filters. By this means an ample supply of water in case of fire will be stored in the immediate vicinity of the hospital, and at a very moderate outlay wholesome water purified and cooled by passing for a considerable distance through sand and gravel filters, can be most advantageously substituted for that now in use.

6. For the extension of the accommodations of the hospital by the erection of a separate hospital building for the female patients, \$300,000, one-third of which is asked for expenditure in the fiscal year 1879-'80, \$100,000.

The American Association of Medical Superintendents of Institutions for the Insane, comprising the leading alienists in the United States and the British Provinces, at their annual meeting held in Washington in May, 1878, passed, among others, the following resolutions:

"That this association has had great satisfaction in visiting and carefully inspecting the Government Hospital for the Insane, giving, as it does, renewed evidence of the liberality and humanity of the public authorities in their generous provision for these unfortunate wards of the nation, and especially as showing very strikingly the fidelity, economy, and ability with which appropriations heretofore made for its buildings and support have been used on all occasions.

"That while recognizing the high position thus far deservedly held by this hospital, which ought ever to be, in all respects, the model institution, to which the different States could look for a safe example when making provision for their insane, the association is reluctantly compelled to refer to an existing and obvious deficiency, which is sure to seriously impair its usefulness and lower the high standard of character which it has heretofore maintained. That the defect just alluded to consists in its greatly crowded condition, rendering impracticable the best matured plans of treatment, and certain to show in the future, in a still higher degree, the great and serious losses that must be sustained by this unfortunate condition of its wards.

"That this association firmly believes that all these deficiencies and defects can be remedied by the prompt provision of additional accommodations, which no plea of expediency could justify being made anything below the highest standard long since adopted by this association; and it would, therefore, most respectfully commend the subject to the earnest consideration of the representatives of the people for whose benefit this noble hospital has been established, as one demanded by the strongest claims of an enlightened humanity and a true economy."

The opinion of such a body of men, in a matter in which they are experts, is entitled to great weight.

This is the fourth year that an appropriation has been asked for the relief of our overcrowded hospital by providing a distinct building for

the female patients, a plan that has been successfully adopted in New York and Philadelphia, and also by the State of Michigan. The plan has been fully discussed in the estimates of previous years, and if it has lost something of the charm of novelty, it has certainly lost nothing of the urgency of its need by the delay. As it will require three years for its completion, only one-third of the estimated cost of erection is asked for expenditure in the fiscal year 1879-'80.

7. For the immediate relief of the overcrowded condition of the hospital, by the erection of suitable structures for the present accommodation of two hundred and fifty patients of the chronic class, \$30,000. (It is recommended that this appropriation be made immediately available on its passage.)

In the present overcrowded state of the hospital it is, in one sense, a question of minor importance what enlarged provision for the insane of the Army and Navy can be perfected three years hence, but it is of the utmost importance that something be done at once. In response to our urgent appeal, Congress, at its last session, appropriated \$5,000 for a barrack to make temporary provision for fifty patients. This was an experiment; the result is a building that will probably be ready for occupation by the 1st of December, proximo, that will furnish entirely comfortable quarters for fifty of our inmates who are able to assist about the grounds. While the design is that the occupation of this building for the lodging of patients shall be only temporary until more complete and permanent provision can be made in suitably appointed hospital buildings, the structure itself will be a permanent one, and can, with very little alteration, be used as a workshop for the employment of a large number of patients. It is possible, with an appropriation of \$125 per patient, or \$30,000 in all, made immediately available on its passage, to provide, between the final adjournment of this Congress and the time of assembling of the next, equally satisfactory temporary accommodations for two hundred and fifty patients in permanent structures, not unsightly in their character, and which, when no longer needed for occupation as dormitories, can still be made available in demonstrating the great advantage of varied occupation in the treatment of the insane.

This much-needed relief attained, the Government Hospital will take the position to which it is entitled as the National Hospital for the Insane.

This Board, in common with the civilized world, has been called upon to mourn the loss of Prof. Joseph Henry, for many years one of its members, and but recently its president.

With all his distinguished public labors, Professor Henry still found time to devote to the welfare of the insane, and from 1863 until the date of his death he held the position and attended to the duties of an official visitor of the Government Hospital for the Insane. He, of all men, has no need for elaborate eulogy, but the great interest that he took in everything pertaining to the enlightened care of the insane, not less constant, though less widely known, than his interest in scientific research, is certainly deserving of mention here. Having the prosperity of this hospital warmly at heart, he was at all times a welcome visitor within its walls. Its officers sought him for his counsel—a counsel judicious and wise; its inmates found in him ever a kindly ear to listen, a smile, and a pleasant word for all. With his associates his intercourse was cordial, and his presence, while it was entirely unostentatious, was ennobling; a most courteous, Christian gentleman, of whom the world is losing the type, but while they must go from us, they may not wholly die.

At the annual meeting of the Board of Visitors, resolutions of respect and condolence were unanimously adopted.

By removal from the District to his new field of usefulness in New York, Rev. Dr. Newman has deprived the hospital of his valued services, both as visitor and chaplain.

Rev. Francis E. Boyle, after a long and useful labor as one of the chaplains of the hospital, a labor that has been most acceptable to the hospital and its inmates, has felt compelled by his increasing duties elsewhere to resign his position. The Rev. J. O. Sullivan succeeds him in the service of chaplain here.

Miss Harriet J. Bennett, after a very faithful service of nearly thirteen years as housekeeper, resigned her place to take the equally responsible but less laborious position of matron in the Bloomingdale Asylum at New York. She carries with her the kind remembrances and best wishes of our household. Mrs. Sophia C. French, a former employé of the hospital, has assumed her duties.

Mr. Evander French has been appointed farm steward. There have been some other minor changes, but most of the resident officers of the hospital have remained without change, and to their faithful service and commendable pride in their work much of the success of the year is due.

Chapel exercises were omitted during the hot months of July and August. With that exception religious services, at which a large number of the inmates have attended, have been held in the assembly-room every Sunday afternoon throughout the year. Also, during the winter and spring, entertainments have been given on three evenings of the week that have also been very fully attended by those whom they are designed to benefit. We gratefully acknowledge the aid voluntarily rendered by singers and amateurs from the city, who have kindly assisted at our concerts and dramatic representations. The hospital would also acknowledge a valuable set of Hayden's Views in the Yellowstone Valley, and photographs from the northwestern country, from the Surgeon-General of the United States Army; also a series of fine photographs from many of the works of art in the Corcoran Art Gallery, presented by Dr. J. C. Welling. The ladies of the Board have likewise contributed articles of fancy work, plants, and flowers for our wards. Whoever has such things to give will find an opportunity here. Reading matter, such as newspapers, magazines, and books, are always welcome to our wards.

The year has been one of earnest hospital work, not characterized by any marked events, but by steady progress, as we hope, towards that end for which this institution was established, "the most humane care and enlightened curative treatment of the insane." For this result we have labored; with what success our hospital must show.

Again we commend the interests of this great charity of the nation to the fostering care of the government that created it, and to the yet tenderer consideration of that common humanity which, embracing all parties, is above all, and, mightier than Senates, is ready to aid the afflicted in their need.

We are, very respectfully, your obedient servants,

J. K. BARNES,
President of the Board.
W. W. GODDING,
Secretary, ex-officio.

Hon. CARL SCHURZ,
Secretary of the Interior.

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REPORT
OF
THE ARCHITECT OF THE UNITED STATES CAPITOL.

ARCHITECT'S OFFICE, UNITED STATES CAPITOL,
Washington, D. C., October 1, 1878.

SIR: I have the honor to submit the following report relative to the works under the charge of the Architect of the Capitol, showing the progress made since the last report, and the expenditures during the last fiscal year for the Capitol and its grounds.

CAPITOL.

The alterations and improvements to the heating and ventilating apparatus of the House of Representatives have been made in conformity to the recommendations of a commission appointed for that purpose. This commission, by a resolution of the House of Representatives, has been continued, and will give further consideration to this subject.

The question of substituting electric light for the present manner of lighting by gas has received some attention, and, in my opinion, this mode of lighting may become practicable. At any rate, this subject is worthy of investigation.

Attention is called to the insecure condition of the wall, ceiling, and roof of the old Hall of Representatives in case of fire. The semicircular wall of this hall is constructed of timber, covered with laths and plaster, resting on the floor of the galleries (also constructed of wood), which form the ceilings of the store-rooms containing papers and other inflammable matter. The construction of this portion of the building is such that, should a fire take place in any of the rooms adjoining the wall just mentioned, it would, in all probability, ascend to the roof, in which case great damage might be done to the building and the statues in the hall. To prevent danger by fire, I recommend that all the wooden construction be taken out and fire-proof be substituted. In doing this I recommend that the galleries be abolished and the semicircular wall be continued to the floor of the hall. This change will enlarge the area of the floor and give more room for the statuary.

A large iron tank, with new pipe-connections, has been placed in the loft of the Senate wing. Also a small steam-boiler and force-pump, to supply tanks with water in summer-time, thus avoiding the use of the large boilers during the recess of Congress. Two large fire-extinguishers are being placed in the small courts of the central building as a protection to the wooden portions of the roof of that part of the building. Rooms have been shelved and otherwise fitted up in the cellar of the Senate for the reception of books taken from the loft over the Supreme Court and other portions of the upper story of the central building, which are of wooden construction.

The guard-room of the Capitol Police has been shelved, and is now used for storing duplicate books belonging to the Library of Congress.

Additional shelves and cases for books have been placed in the law library and conference room of the Supreme Court. The building generally has been kept in good condition.

I beg leave to call the attention of Congress to the necessity of providing a place for the store-yards and workshops connected with the Capitol, as those now used are rented.

The property occupied as a store-yard at North B street and Delaware avenue, and that used for carpenter and smith shops at the same street and New Jersey avenue, are soon to be sold. In consequence, the United States may at any time be compelled to leave these premises. Lots have been offered, for the purpose named, adjoining the government property on Delaware avenue, near C street north, on which are situated the Senate stables and fire-engine house, which possess advantages that recommend them.

The works of art, not the property of the United States, which were excluded from the Capitol by the recent law, have been deposited in the Corcoran Art Gallery of this city for safe-keeping.

CAPITOL GROUNDS.

Mr. Cobb, engineer, reports the following in relation to these grounds: The improvement of the Capitol grounds has progressed steadily since the last report, and they now begin to assume the appearance of approaching completion.

The appropriations for the last fiscal year are as follows:

Act of March 3, 1877, for paving roadways	\$73,000
Act of March 3, 1877, for general improvement.....	100,000
Act of April 30, 1878, for general improvement	9,000
Total	182,000

All these sums were made available on the passage of the several acts, so that on the 3d of March, 1877, there was to the credit of the Capitol grounds \$173,000. This was increased by act of April 30, 1878, \$9,000, making \$182,000 in all. Of this amount there had been expended previous to June 30, 1877, upon the grounds, \$11,767.04 and upon ventilation of the House of Representatives \$8,500.02, or \$20,267.06 in all, leaving \$161,732.94 for ventilation and general improvement during the fiscal year ending June 30, 1878.

This was distributed as follows:

For paving roadways and footwalks.....	\$68,393 99
For general improvement	70,368 25
For ventilating House of Representatives.....	22,970 70
Total	161,732 94

As will be seen by reference to accompanying schedule.

The men employed have for the most part been kept upon one-half time.

The expenditures for labor were \$29,936.36, as against \$54,064.85 the previous year.

The number of days' labor performed by men is 20,636½, by horse 1,789.

The road pavements laid during the year, with the exception of a small portion put upon the northeast and southeast entrances to east park, are in excellent condition, and fully justify the selection made. No defects of any moment have appeared, but all give evidence of the superior material and skill employed in laying them.

The artificial-stone footwalks put down are very satisfactory. A four years' trial of this material proves its durability and general adaptability for walks of this character.

Those already laid are subject to constant and severe usage, which has not seemed to materially injure them. This work is being carried forward during the present year as far as the appropriations will allow. A walk has been carried around the east side of the circle at Pennsylvania avenue approach, and about fifty feet of the main walk from the entrance toward the building has been put in.

This is of simple design, in harmony with the improvements at that point.

The screen wall along First street west is composed of granite and bluestone base, with Ohio stone above. This is partly of open baluster-work and partly of solid wall, with massive piers at the prominent points and entrances. A drinking fountain, elaborately arranged, is placed opposite the entrance to the Botanical Garden. The whole of the work is appropriately and richly carved, is well done, and presents a fine appearance. The work was let to the lowest bidder, Richard Rothwell & Co., of Washington, for \$12,610.74. This improvement will be extended during the present fiscal year, so as to complete the entrance at Maryland avenue similar to that at Pennsylvania avenue.

The stone work surrounding the Naval Monument and all the improvements at that point have been completed, ready for the introduction of water and the proposed bronze figures and lamps.

The necessary steps have been taken for obtaining possession of the property at Pennsylvania avenue and Maryland avenue at their junction with First street west, by application, through the Secretary of the Interior, to the District court for the appointment of appraisers.

As soon as possession is obtained, the proposed circles at these points will be extended and the roadways completed according to the original design.

The year has proved exceptionally favorable for agricultural purposes. All the lawns are completed and sown in grass. But little shrubbery has been lost from any cause, and much has been added. It is hoped that during the coming year all the planting may be accomplished, and arrangements are now in progress to that end.

The low rustic wall has been completed around the north portion of the east park.

It is proposed to finish the entire northern and western and part of the southern boundaries during the present fiscal year.

This will be similar in design to that already completed, with such modifications as the situation demands.

Since the appointment of watchmen, authorized by the last Congress, but little loss has been experienced and but few depredations committed upon the grounds.

There is a marked change for the better in the character of travel upon the drives, and privacy and good order are uniformly maintained. Additional legislation, however, is needed to establish regulations for the proper government of the park, with penalties for their violation.

NAVAL MONUMENT.

The bronze dolphins on the four sides of this monument, which form the fountains, and the bronze lamp-posts at the four corners of the bowl have not been ordered, no funds being available for that purpose. While waiting the action of the court in taking legal measures to acquire the property at the foot of the Capitol, at the north side of Pennsylvania avenue, the work of enlarging the circle at the south side is progressing.

BOTANICAL GARDEN.

The painting of the various houses at this place is being done, and everything put in good order. Slate tables have been put in at the eastern part of the conservatory, and the marble-fountain bowl is being prepared.

The superintendent's residence at this place has been made more habitable, by putting in new floors in the lower story.

Owing to the damp condition of the soil on which this building is erected, and the frequent inundations to which these grounds are exposed, this building is unfit for a human habitation. As it is important that the superintendent should be near the garden at night as well as during the day, particularly in winter when great attention is required to keep the various hot-houses and the conservatory at the proper temperature, I recommend that a suitable dwelling be erected for his occupancy on the south side of Maryland avenue, immediately opposite the garden proper.

COURT-HOUSE.

The walls of the circuit court room have been newly papered, and the ceiling and wood-work of both court rooms painted.

The roof, which is very defective, has been made, for a time, watertight, and the furnaces and plumbing put in good order. Several rooms have been whitened and painted, and the building kept in good order, so far as the small amount available for this work would permit.

Considerable damage has been done to the bases of the columns by the use of the portico as a place for public meetings. The material used in these bases is a soft sandstone, and is easily injured by persons treading against them. In consequence of the damages above mentioned, I recommend that the practice of holding public meetings at this building be hereafter forbidden.

CAPITOL EXTENSION.

Amount expended from June 30, 1877, to June 30, 1878.

For pay-rolls of mechanics, laborers, &c	\$28,618 31
For new boilers, Senate wing	12,323 41
For painting material and glass	2,711 25
For salary of Architect	4,500 00
For plumbing and steam-fitting material	4,888 14
For hardware and iron	2,121 54
For salary of disbursing agent	1,000 00
For lumber	969 03
For iron-castings	336 38
For encaustic tiles	103 50
For material for covering fly-doors and gallery seats	458 12
For fresco painting	2,585 00
For marble	555 74
For freight	290 16

For clocks, &c., center building	\$100 00
For cement, lime, &c.....	235 75
For brushes, soap, sponge, &c., for cleaning floors and walls	559 31
For nickel plating.....	140 00
For stationery	92 55
For forage	80 00
For bell-hanging	187 75
For copper-roofing	1,038 10
For miscellaneous	378 96
	64,000 00
Amount appropriated June 30, 1877	\$55,000 00
Amount appropriated April 30, 1878 (deficiency).....	9,000 00
	64,000 00

CAPITOL GROUNDS.

Amount expended from June 30, 1877, to June 30, 1878.

For coping-wall, east park.....	\$9,642 19
For coping-wall, west park.....	1,482 33
For screen-wall, west park.....	13,651 69
For stone-work around naval monument	1,926 00
For guards for statue of Washington.....	50 00
For bronze fountains, east park (balance)	705 19
For bricks	694 05
For building-stone	118 90
For sand and gravel.....	211 51
For cement	950 09
For curbing and edging	404 78
For grass-seed	197 63
For trees and plants	475 51
For manure and other fertilizers	575 00
For soil.....	1,018 75
For sodding.....	125 40
For ornamental iron-work	1,258 44
For lumber	214 25
For tools and hardware	185 58
For freight and hauling.....	837 76
For gas-service	863 01
For sewer-drainage.....	487 17
For rents and miscellaneous bills.....	1,018 10
For voucher for labor	737 00
For stone-block pavement.....	1,326 23
For Grahamite and Trinidad asphaltum (W. R. Davies & Co.)	38,499 47
For W. H. Groat's asphalt pavement (Van Camp's patent)	2,300 82
For vulcanized asphalt (Crawford & Hoffman)	15,667 85
For Neuchatel pavement.....	6,093 75
For artificial-stone foot-walk (G. W. Cook).....	3,855 91
For repairs of old road pavement.....	538 11
For repairs of old foot-walks.....	111 75
For O. C. Bullard (on trees).....	124 50
For Thomas Wisedell (draughtsman).....	1,040 38
For Fred. Law Olmstead (professional services).....	1,436 78
For pay-rolls for mechanics, laborers, &c	29,936 36
Total expended since June 30, 1877.....	138,762 24
Amount expended of appropriation previous to June 30, 1877, which was available on passage of act March 3, 1877, for improving grounds.....	11,767 04
Amount expended for ventilation of House of Representatives since June 30, 1877.....	\$22,970 70
Expended between March 3 and June 30.....	8,500 02
	31,470 72
Total	182,000 00
Amount appropriated by act March 3, 1877.....	\$100,000
For paving east court.....	64,000
For paving East Capitol street.....	9,000
By act April, 1878	9,000
	182,000 00

LIGHTING UNITED STATES CAPITOL AND GROUNDS.

Amount expended from June 30, 1877, to June 30, 1878.

For pay-rolls, superintendent of meters and lamp-lighters	\$2,778 04
For gas consumed	26,004 62
For regulators	340 00
For repairing chandeliers	248 00
For globes and burners	248 00
For labor and tiling for floors	138 00
For wire, plates, and chemicals for electric battery	1,292 29
	31,048 95
Amount appropriated March 3, 1877	\$30,000 00
Amount appropriated June 14, 1878 (deficiency)	1,148 95
	31,148 95

Very respectfully submitted.

EDWARD CLARK,
Architect United States Capitol.

Hon. C. SCHURZ,
Secretary of the Interior.

REPORT
OF
THE GOVERNOR OF ARIZONA TERRITORY.

TERRITORY OF ARIZONA,
EXECUTIVE DEPARTMENT,
Prescott, Ariz., October 28, 1878.

SIR : I had already the honor on the 16th instant to acknowledge the receipt of your letter of the 9th August, requesting me to submit by the 1st of November a statement of the actual condition of this Territory, together with such suggestions as my experience here might enable me to offer. As I then informed you, my arrival in the Territory had been delayed by unforeseen causes, and my attention to business further interfered with by illness after my arrival at Prescott.

The slight opportunity which I have had for personal observation or inquiry only enables me, therefore, to make a very brief and general statement.

Arizona has remained shut up and barred out from progress by its inaccessibility. There were neither railroads to it nor in it, nor any roads other than those afforded by the natural surface of the ground, and these are rendered more than ordinarily difficult by the hot, dry, and sandy or stony ground over which lie the approaches to the Territory. In the Territorial laws these are spoken of as *desert roads*.

Lately it has been made possible to reach Arizona on rail from the East by traveling along the 42d parallel of latitude down to San Francisco, in longitude 122°, and thence southeastwardly backward 720 miles to Yuma, east of longitude 115° and south of latitude 33°. This isolation has kept it shut out from immigration and precluded the development which its great resources would otherwise have commanded. The language habitually applied to it is very descriptive of its remoteness. Californians and Arizonians alike speak of going *outside* when traveling to Arizona and *inside* when returning to the surrounding territory.

Broken ranges of mountains, swelling occasionally into lofty peaks and pine-covered masses, and alternating evenly with elevated valleys or mountain basins of greater or less size, represent in general terms the face of the country in Arizona. Its water-ways are the Colorado and Gila Rivers with their tributaries, of which none enter either stream in the lower part of its course. The valley of the Colorado, between its river hills or bordering mountains, is dry, stony, and barren, the mountains naked rock. Crossing these in journeying from Ehrenberg eastward, a traveler in spring would find this country covered with bloom, the shrubs and trees being represented mainly by acacias and cacti, and the ground covered with low flowering plants among grass growing thinly. Except for some shrub-like trees and gigantic cactus (*Saguara*), *ocotillo*, and yucca trees, the ridges herealong are still of naked, glis-

tening, and black or barren rock, showing no signs of water. The acacias, *Palo verde*, and other trees crowd down into the dry stream-beds, reaching after the water below the sands, but the *ocotillo* and tree-cactus delight in the stony and dry mountain sides. In the rainy season these stream-beds are short-lived torrents. This is the country traversed by the *desert roads*. But this character of desert, applied to the valleys, comes only from the heated air and absence of water, and not absence of vegetation. A running stream would make anywhere here a garden.

After some seventy miles, as the crow flies, over such country, what may be called *fertile mountains* are reached, that is to say, mountains more or less covered with shrubs and grass, and having springs and running streams, and affording good cattle-ranges. Continuing eastward, the country in this respect steadily improves, until, after traveling over about a hundred miles of air distance from Ehrenberg, scattering junipers of very sturdy growth appear, several feet in diameter, with here and there small oaks and locust trees; and presently the road enters among pines, which thenceforward generally cover the more upland parts of the country to the eastward.

The elevation here is probably 5,000 feet in the valleys, the surrounding mountains rising several thousand feet higher. On the higher ranges, such as the San Francisco and Mogollon, these open woodlands become extensive forests, where the pines reach sometimes a solid growth of six feet in diameter. From Prescott the San Francisco Mountains show grandly in the horizon of hills some sixty-five miles away to the northeast, and 12,700 feet above the sea. These and the Mogollon Mountains are the principal water-sheds of Arizona, rising from elevated plateaus of 6,000 or 7,000 feet into peaks between 9,000 and 13,000 feet above the sea. They make a forest country averaging 40 miles in breadth, extending through the Territory southeastwardly over the headwaters of the Gila and probably into Mexico. North and east of these ranges, and running up into the flanks of the mountains, and reaching, doubtless, far to the south, are reported to be the great coal-fields of Arizona.*

In contradistinction to the Eastern States, where the streams maintain themselves in gathering strength from mountain to sea, dryness is one of the striking features of this whole elevated region. Streams and springs are few and far apart. The larger streams gather no affluents, but waste themselves in absorption and evaporation, and the smaller ones usually sink and disappear under the first valley which they enter, where the soil is generally light and loose enough to absorb them. But the water can there always be found; in the lower country, at variable depths of fifty to two hundred and fifty feet, and usually only a few feet below the surface in many of the upland valleys. This may give the necessary provision of water for the farms in the valleys, while the mountains furnish it sufficiently for stock. There are two seasons of falling weather: the heavy summer rains, when the washes and stream-beds become temporary torrents, and the winter season of rains and snow. Now, at the end of October, the falling weather of the winter has not

* From Mr. A. O. Noyes, who had a saw-mill twelve miles from Prescott, and who was for many years engaged here in the lumber business, I learn that the pines in the Prescott Basin run from an average diameter of twenty-eight inches to four feet in the largest trees. But they do not make good lumber, because there are so many knots in the trees, caused by fires, and because so many trees have been struck by the lightning, which is one of the local features here. There are also in this basin some very fine spruce trees, nearly four feet in diameter. In the large belt of forest to the north all is clear, fine timber, with an average diameter of four feet, reaching to five feet in largest trees. Mr. Noyes has cut here some twenty-five million feet of lumber. He tells me that on his books are crosses against the names of over three hundred men, with whom he had dealings, who have been killed by Indians.

yet commenced except in the high mountains. The days are warm, the sky is uninterruptedly cloudless, but ice makes at night, and a light snow has just fallen on the San Francisco Mountain. The grass there is beginning to dry up, and the northern face of the mountain is probably covered with snow.

The Little Colorado and Salt River regions are reported to be the granaries of the Territory. Their valleys are becoming garden-spots, and the bordering mountains great stock-ranges, where the cattle are sometimes too fat to be driven. Like California, the country is favorable to animal life. In the Salt River Valley there are probably 100,000 acres under cultivation; in the Gila Valley, between the Pima villages and the mouth of the cañon, about 50,000; in the Santa Cruz Valley, about 25,000; and 25,000 more in all the southern district. In the Salt River Valley the amount under cultivation is being rapidly augmented to the full extent of the water-supply. On the San Pedro River the land is sparsely occupied, and mostly for grazing; and farther to the eastward the country is better adapted to grazing than agriculture. Many years ago I found on the San Pedro and neighboring country many wild cattle which had belonged to ranchos now deserted, where the people had been killed or driven off by Indians. So far as my present knowledge goes, the grazing and farming lands comprehend an area about equal to that of the State of New York.

The climate of Arizona depends of course upon latitude and elevation. Heat is the dominant feature, and this in the lower country is of an intensity seemingly not due to the latitude alone. In the dry, naked valley of the Colorado River the summer heat is intense, and the season of summer encroaches largely upon spring and autumn. Over the eastern part of Southern Arizona it is the same. North of the Gila River, and fifty miles east of the Colorado, the heat is already tempered by the elevation, and farther into the interior the increased elevation and wood-covered mountains make a pleasant and healthy climate. South of the Gila the open, low, dry, and hot region extends farther to the eastward, but the eastern half offers a fine country, increasing in good character to the south, up to and beyond the boundary line. Generally speaking, the climate is noticeably healthy. The heat of the sun does not produce the fatal effects of extreme heat in the moist climates of the Atlantic coast, and though the country itself may be said to have regular chill and fever, varying usually in temperature more than 30° between three o'clock in the afternoon and three o'clock in the morning, this disease is almost unknown to its people. No instance of it has been known on the Colorado River, and though there is something of intermittent fever at Tucson, it is thought due rather to the alternate wetting and drying of the ground by irrigation than to any climatic influence.

I have given the surface character and capacities of the Territory in this brief way for the reason that my insufficient knowledge does not permit more than such a general idea.

But the chief industry of Arizona, that upon which the others will mainly depend, and that upon which in fact the Territory depends for value, consists in the development of its mineral wealth. It is pre-eminently a mineral region, capable of sustaining a great mining population. Without enumerating others, silver, gold, and copper seem to be the ores most generally diffused throughout the Territory, and among these silver is the *characteristic*. Silver in combination with gold, copper, lead, and other metals, extends in numerous veins of greater or less size and value from the Colorado River, on the west, to the eastern boundary line of the Territory. These have been partly resolved into

districts, where, up to this time, mines or lodes of greater value have been discovered grouped together in belts or basins.

The Mineral Park district has a belt of this kind which is reported to be nearly a hundred miles long, carrying between porphyry walls a mile and a half breadth of productive ore-matter, which is interspersed with veins, principally chlorides of silver. These are said to be very rich, reaching several hundred dollars the ton. The whole mass is said to carry silver.

The Bradshaw district is said to be full of large, permanent veins, upon some of which mines have been opened that are producing ores of extraordinary value. I mention these as having come more particularly to my knowledge since my arrival, but similar reports are coming in from other parts of the Territory, and more especially from the southeastern extremity, where veins have been opened which give promise of greater richness in gold and silver than any hitherto discovered. In the immediate neighborhood of Prescott are rich mines. Want of transportation and consequent want of population and money, together with the sense of insecurity still existing, have prevented a full knowledge of these lodes as well as a development of those already known.

Left to themselves in the mean time, many settlers, instead of becoming farmers in grain, have become small farmers in gold and silver, locating veins or placer-grounds which they work themselves.

These gold or silver farms, as they may be called, yield a small but sure product, for which any town is the market. In Arizona are found the only instances, within my knowledge, where three or four men working together, without money or outside aid, have managed to develop veins into regular silver mines, which have already yielded several hundred thousand dollars, with a promise of still greater success. But these are the solitary examples of opening large mines without money. The "silver-farms," as I have designated them, are smaller enterprises. By a moderate use of money in directing and aiding this kind of labor the general government might come in aid of this industry, and open out a prospect for employment to the large class who, of late years, have been suffering from want of it, and the utmost exertion of whose skill and intelligence has not been able to command a support. Aided by the government in a way which might be indicated, any man might here find room for his labor, needing only his own resolute, stout work to pick fortune from the earth.

But to give full development to the mining interest, large capital must be brought into the Territory. There is not money here to do it. An absolute security in titles and authorized knowledge of the value of mines would go far toward attracting the necessary capital. In this the government might intervene with advantage to itself as well as to all those concerned in this interest.

Gold in veins and placers is variously found throughout the Territory. Like Missouri and Utah, Arizona has her Iron Mountain, and copper ores of rich character, carrying with them silver and gold, are found in great force. A large percentage of copper is found in the upper workings of silver ores. Many years ago, and before our occupation of the country, I found in Southern Arizona the trail of wagons engaged in transporting copper ore from the Upper Gila to the city of Chihuahua, the silver and gold found in the copper being sufficient to defray the cost of the long and hazardous journey. Notwithstanding the desultory working of the mines, the actual weekly shipment of bullion, by way of Yuma, to California, is about one hundred thousand dollars.

The educational system of Arizona is that of our public schools. The

governors of the Territory, more particularly Governor Safford, have made this a special subject, and I learn that it is in admirable condition. There are, I believe, some private schools at the south under the direction of the Catholic clergy. The Territory is young and as yet without revenue for the establishment of charitable institutions. The boards of supervisors in the several counties are authorized by law to provide for poor persons who may be in any way enfeebled or disabled. There is no insane asylum in the Territory. The governor is authorized to contract with the authorities of the State of California or with the proprietors of any hospital in that State for the proper keeping of the insane of the Territory.

There is a Territorial prison, supported by the Territory, and located by law at Yuma. It is managed by a board of Territorial penitentiary directors, who audit claims and make such rules and regulations as they think proper for the discipline and management of the penitentiary.

The legislative assembly of Arizona meets biennially at the capital on the first Monday in January. Representation is apportioned according to population, and the members of the assembly are elected by counties at the general election held throughout the Territory every two years on the Tuesday after the first Monday in November.

Every male citizen of the United States, and every male citizen of Mexico who shall have elected to become a citizen of the United States under the treaty of peace exchanged and ratified at Queretaro in 1848, and the Gadsden treaty of 1854, and every male person who shall have declared on oath before a competent court of record his intention to become a citizen of the United States, and shall have taken an oath to support the Constitution and Government of the United States, of the age of twenty-one years, who shall have been a resident of the Territory one year next preceding the election, and of the county or precinct in which he claims his vote ten days, and of whose name is enrolled on the great register of such county, shall be entitled to vote at all elections which are now or may be hereafter authorized by law.

The Yuma, Mojave, and Hualapai Indians live in the eastern and northern part of the Territory.

The Yuma and Mojave Indians are quiet, poorly armed, and glean a scanty subsistence from the native products and some little agriculture. The *Hualapai* Indians are important from their character. They are the best fighters in the Territory, and were successfully used by General Crook in subduing the Apaches. Lately they have suffered from small-pox, losing thirty-two of their braves in one week. They are moderately well armed, and just now are restless from want of food.

The Chimahuevas are a small nomadic tribe, living to the north in the neighborhood of the San Francisco Mountains.

The Pi-Utes are north of the Colorado River scattered over the Basin country. They are of uncertain, treacherous character, and will seize any occasion to rob or murder, when they can do so safely.

Of the Apaches, some five thousand in number have been concentrated on the San Carlos Reservation. They are probably well armed. These Indians for many years hung on the frontiers of Mexico, into which they were making continual inroads, and rendered also life and property throughout this Territory very precarious until they were reduced to submission by General Crook. One band of renegades and white men, about five hundred in number, were driven over the border, where they still remain. They are the very worst Indians in or about the Territory. They cross the border at any opportunity to rob the mail

or wagon trains, but they do not find it easy to get through our lines. At present, there is not food enough for the Indians at the San Carlos Agency, and about five hundred have been given leave to go off the reservation to hunt.

The Pimas, Maricopas, and Papagos are in the southern part of the Territory. These are numerous.

The Pimas are the most interesting of all the Indians. They own a very fertile valley on the Gila, and are well supplied with money and arms. The three tribes have probably this year earned some thirty thousand dollars by farm products and rude manufactures. The Pimas and Maricopas are now in the midst of our people, who have built up to their valley, and there are already some misunderstandings growing up between them.

There are other small tribes or subdivisions of tribes, but you will probably be most interested in the condition of these mentioned. My information on the subject is incomplete, but good as far as it goes.

Arizona offers a suitable field for solution of the Indian problem.

Insecurity of life and property is among the causes which have retarded the growth of the Territory. For this, among other reasons, I am strongly of the opinion that absolute and plenary control over the Indian tribes in the Territory should be given to the War Department. The direct, immediate, and inevitable responsibility of officers of the Army would insure on both sides compliance with duties and obligations. There would be neither spasmodic starvation nor spasmodic outrage. The disposition and movements of the Indians would be constantly and immediately known to the commanding officer of the department, and a corresponding vigilance in protection always insured to the people; something essentially necessary in a country where trackless mountains and isolated settlements offer dangerous facilities to an Indian enemy. Under the steady pressure of such a regulated system the Indians could best be brought together in town and farming settlements, and whatever capacity they may have to acquire the habits and do the work of civilized life could best be developed. I think it would be thoroughly successful.

The condition of the Pima Indians, who have shown themselves among the very best on the continent, could be raised and improved; and the five thousand Apaches who uselessly occupy land enough to make a small State, would be much happier upon a few hundred thousand acres where every man who would use it could have his square mile. And such a disposition of the Indians would at once do away with a cause of inevitable collision with our settlers.

By a system much like this the Franciscan order in California reduced to submission and regulated labor large bodies of Indians. Under the administration of the "*Fathers*" they were brought together in communities and taught to build houses, till the ground, and take care of large herds of horses and cattle. With the Indians as laborers they erected the large churches and mission buildings which stretched along from San Francisco a thousand miles to Cape Saint Lucas. At the mission of San Gabriel alone, still one of the most beautiful spots on the continent, there were more than a hundred thousand head of cattle, and many thousand Indians were employed in fields, orchards, and vineyards, learning the arts of civilized life and practical Christianity. But this was done under the mild and paternal discipline of an order military in its obedience, working with a direct responsibility, and with no other object or interest than the strength and glory of their church. The

esprit de corps of the Army and their sense of duty to the country could be relied on to work with equal fidelity and produce similar results. When the missions were broken up by the Mexican Government under Santa Anna, the Indians were dispersed to the great valleys of the Sacramento and San Joaquin and the Sierra Nevada Mountains. Before our occupation of the country I found them there in great numbers. Every river had its *rancheria* and every little tributary or spring in the mountains had its village or family of Indians. Since our occupation they have disappeared.

I have dwelt upon this subject because I see it demands the early attention of the government. It is of the first importance to this and the bordering Territories. I am informed that, for cause, the Apaches on the San Carlos Reservation, and the Pimas on the Gila, are in a discontented and angry temper. It is reported that the game in the Hualapai country is gone and that many of those Indians are in danger of starvation this winter. This is a smouldering fire. These Indians have arms and know how to use them well. If an outbreak should occur, there would certainly be great loss of life in this Territory before it could be subdued. There is but little telegraphic or other easy communication, and the people are dispersed over a large area of mountainous country admirably suited to Indian warfare.

I have already adverted to the drawback which want of transportation has been to this Territory. By its situation Arizona is the natural *gateway* of commerce and travel between the States east of the Mississippi, and California and the Pacific Ocean. Fronting on Mexico it is in position to profit by any developments which may result from the awakened interest of our merchants and manufacturers in the trade of that country. You will remember that before our civil war Congress had directed examinations for an overland route to the Pacific, to be made on four different lines between the 32d and 46th parallels; and upon comparison of results by the War Department the 32nd parallel line was declared the best. A bill was accordingly framed adopting this line, and with a large grant of lands and money had already passed one House and was about passing the other, when events occurring in Texas were announced in Congress, and the line of the road thrown to the north. It is interesting to speculate on what might have been, had this southern line been already built before the war. True to the instincts of commerce the northern road has swept round through California and is entering Arizona from the west, while other great roads are converging into it from the east and north. Passing together through this *gateway* of Arizona the united roads will enter Mexico by a trunk line which will be nourished by ten millions of people and the sea at Guaymas, while its branches will penetrate the States. This is the commerce which is to develop Arizona, and a railroad connection with the seaport of Guaymas is a necessity to it. Any aid that Congress could be induced to give these railroad enterprises would be repaid manifold to the country in increased revenue from increased commercial activity and the opening of new branches of trade, especially for the rich products of Mexico, and in the great addition to the common wealth by bringing into use that which now remains locked up in the mines of this country.

With the object of increasing the water supply, I suggest for your consideration the employment of competent persons to examine the structure of the country, and make occasional experiments with the view of indicating to the people the situations and depths at which water, whether by artesian or other means, may be found. An expert

distinguished for extraordinary skill in this science procured water for the city of Constantine in Algeria, which is built on the summit of a lofty, rocky peninsula, 2,000 feet above the level of the Mediterranean, and is accessible on one side only; being on all others begirt by a ravine of sixty feet in breadth and of great depth, at the bottom of which flows the Rummel. This expert found water for the city just below one of the gates in the wall which surrounds it. He was also employed by the French Government to search for water in the plain of Chalons, where Napoleon III desired to form a large camp, and he succeeded in finding an abundant supply for the proposed camp of 60,000 men. Such a man might convert the deserts of Arizona into the rose-fields of Bulgaria.

Coupled with this, measures might be adopted in the interest of the large mining population to be expected—the silver and gold farmers—and as well in the interest of non-residents investing money here, which would spare much fruitless labor to the one and much fruitless expenditure of money to the other. In view of the great importance which this branch of industry is assuming, a moderate expenditure of money for the ends indicated, and half a million of dollars for common roads in the Territory, could be made with very happy results.

The progress of settlement in the territory south of the Gila River is said to be retarded by the condition of private land titles, which have remained unsettled since the acquisition of the Territory in 1854; now twenty-four years ago. Some legislation on this subject seems very important to close it, and the experience in California land-titles might suggest to Congress some mode of speedy settlement.

These are the principal points to which, in compliance with your request, I have ventured to call your attention. The measures suggested may not all be strictly in accordance with the former practice of the government, but neither are the conditions quite the same as in the previous history of this country. And it might be good statesmanship to meet new conditions by new precedents. This Territory is about equal in area to New York and all our New England States together, excepting Maine, and the labor to be employed in opening it out by rail and common roads, and in developing its wealth by the means suggested, would together give occupation to the 300,000 unemployed people who have not been able to find any field for their labor. Perhaps in this might be found at least a temporary solution of questions which have lately been forcing themselves on the serious consideration of the country.

To some of the old settlers in the Territory, I am indebted for valuable information. I have appended a note of interesting facts from Mr. A. O. Noyes, and I subjoin a letter from the law firm of Messrs. Fitch & Churchill, giving in brief a very clear view of the resources and needs of the Territory.

Valuable statistics which I am expecting from the southern part of the Territory have not reached me in time for this report.

I believe that I have not omitted any of the points referred to in your letter, and I will not add to the length of this paper by introducing others.

Later along I shall be better informed, and if from the reading of what I have written, any inquiry should occur to your mind, I can reply to it from fuller knowledge.

Very respectfully, your obedient servant,

J. C. FRÉMONT,
Governor of Arizona Territory.

Hon. CARL SCHURZ,
Secretary of the Interior

PRESCOTT, ARIZONA, *October 30, 1878.*

DEAR SIR: We have to acknowledge the receipt of your communication under date of the 17th inst., requesting us to furnish you briefly such information concerning the condition and resources of this Territory as was within our personal knowledge.

We cordially indorse your suggestion that it will be of importance to the interests of Arizona to have her resources officially made known, and cheerfully place any information on the subject which we may possess at your disposal.

Generally we can conscientiously say that, in available mineral resources, our Territory is, in our opinion, unsurpassed by any section of the continent. After an extended residence in the mining regions of both California and Nevada, and such knowledge of the mines of those states as one must necessarily acquire in the trial of law cases concerning them, we are enabled to say that in point of the number of its silver and gold mines (including both quartz and placer mines) which now show evidences of permanency and richness Arizona far outstrips either California or Nevada, and the grade of the ores here is generally far higher than in any other place where we are acquainted.

In connection with this vast mineral wealth our Territory has an abundant supply of timber and sufficient arable land to supply its mining communities with farm produce of all kinds, nor can it be said that the agricultural capabilities of Arizona are limited to the extent of supplying its mines. There are numerous valleys so favorably situated, both with respect to climate and water supply, that both semi-tropical fruits and nuts and those of the temperate zone can be produced for exportation.

Our great want is capital to develop our numerous mines and reduce the ores therefrom, and to obtain and conduct the water upon, or mature some other method of working, our vast placer fields.

Until something in this direction shall be done, we have sufficient laborers of all kinds, skilled and unskilled, in the Territory.

We remain, very respectfully your obedient servants,

FITCH & CHURCHILL.

Hon. JOHN C. FRÉMONT,
Governor of Arizona.

I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the proposed sale of the land in the Territory of Arizona, and in reply to inform you that the same has been referred to the proper authorities for their consideration. The result of their action will be communicated to you as soon as it is ascertained.

I am, Sir, very respectfully,
Your obedient servant,
J. M. Smith,
Attorney General.

THE TERRITORY OF ARIZONA,
OFFICE OF THE ATTORNEY GENERAL,
TUCSON, ARIZONA, FEBRUARY 10, 1887.

SIR:

I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the proposed sale of the land in the Territory of Arizona, and in reply to inform you that the same has been referred to the proper authorities for their consideration. The result of their action will be communicated to you as soon as it is ascertained.

I am, Sir, very respectfully,
Your obedient servant,
J. M. Smith,
Attorney General.

REPORT
OF
THE GOVERNOR OF DAKOTA TERRITORY.

EXECUTIVE OFFICE, D. T.,
Yankton, December 16, 1878.

SIR: Referring to your letter of the 9th of August last, I beg leave respectfully to report upon the topics suggested, so far as I have been able to obtain the desired information.

The Territory of Dakota is very large, being nearly four hundred miles square, or more than four times as large as the State of Ohio. The settlements are principally confined to three distinct localities as remote from each other as possible, and of very difficult and expensive communication with each other.

The settlements of Southeastern Dakota, in which is located the present capital, extend from Northeastern Nebraska mainly in a northern direction up the Big Sioux, the Vermillion, and the James Rivers. These settlements are extending north along the border of Northwestern Iowa and Southwestern Minnesota as far as Lake Kampeska, and as far west as the James River. Although the population is sparse at present it is rapidly filling up. Southeastern Dakota has a population at the present time of not less than 50,000, and probably 60,000.

Northern Dakota is settled, or rather settling, along the west bank of the Red River of the North, from Richland County, opposite Breckinridge, down to Pembina, on the line of the British possessions, crossing the Northern Pacific Railroad at Fargo, and extending west along the line of that road to Bismarck. Population, perhaps 40,000.

The other settlement is in the Black Hills, occupied mainly by a mining population, and containing a population at the present time of 10,000 at least, and probably 12,000.

I suppose it is about 350 miles in a straight line from Yankton to Deadwood. But the only feasible way of getting there involves travel of at least 900 miles, and an expense greater than the journey from Yankton to Washington, and requiring more time to perform it. The distance from Yankton to Pembina as the "crow flies" is at least 400 miles, and requires more time and expense than a visit to the capital of the nation.

The three sections are not only remote from each other and of difficult access, but their interests are separate and not identical.

In a commercial point of view, Saint Paul and Duluth are the objective points of Northern Dakota, while Chicago and Milwaukee will naturally drain Southeastern Dakota. Meanwhile the vast wealth of the Black Hills will swing to the right or left as it may best force itself out, or as railroad enterprise shall open a more direct way over which it may move. The great Indian reservation west of the Missouri River contains fifty-six thousand square miles, about the size of all Michigan, including both peninsulas. Of course this will prevent settlement, and tend to turn the business of the Black Hills to the south or north of itself.

Dakota has no public buildings, no military organization, and no arms. There really seems about the same necessity for *three* Territorial governments as there is for *one*. But as population increases they will soon

mingle and blend, and the means of direct intercommunication will naturally follow.

Answering more definitely your inquiries, I may say:

First. The resources of this Territory are both agricultural and mineral, and of vast extent, only partially developed as yet; but enough has been done to demonstrate the fact that Dakota, considering her vast extent of territory, has agricultural resources scarcely second to those of any State in the Union. Dakota has on the east side of the Missouri River at least sixty thousand square miles of land fit for the plow. It is believed at least fifteen million bushels of wheat will be produced next year.

I have been unable to obtain reliable statistics of the mineral resources of the Black Hills. Enough is known to warrant the statement that the mineral resources are very great. Recent discoveries more than confirm the most sanguine expectations. The spirit of wild speculation that characterized the mad rush that resulted in so much disappointment, suffering, insanity, and crime, has given place to well-directed efforts, guided by experience and skill, sustained by capital. I regret I am not able, even at this late day, to furnish statistics. I think I should be more apt to find them in Washington or New York or California, where many of the best mines are owned, than in Yankton.

Second. The soil is generally prairie. The rivers are bordered or skirted with timber. Building-stone and coal are found in various places. The climate is a fair average for its latitude, although generally milder than the same latitudes farther east, drier, and more exposed to wind from the want of timber. Our population is generally estimated at 120,000. It is safe to say it is at least 100,000.

Third. The interest our people take in educational, benevolent, and charitable institutions is at least equal to that of any country, as new as this, with which I am acquainted. The people highly appreciate the magnificent appropriation made by Congress for the benefit of schools, and I believe there will be a disposition to preserve this intact, that posterity may share it to the latest generations. We have no insane asylum. We have 25 lunatics, kept at present at the asylums of Minnesota and Nebraska, at an expense of about \$300 each, besides a large expense for transportation. Even this cannot be had longer than until February. We are now building a pavilion or temporary hospital, so as to bring them home. All neighboring hospitals are full of patients of their own. We have no penitentiary. Our convicts are kept at Detroit, at a very heavy expense for transportation and keeping. The management of the convicts is humane and satisfactory, but the expense for transportation and keeping is a very heavy burden, and rapidly increasing. In this way, the two items of expense for the convicts and lunatics have absorbed nearly all our Territorial revenue, and left a floating debt in the shape of Territorial warrants of about \$20,000. The construction of a Territorial prison and insane asylum seems to be the only means of avoiding future bankruptcy.

Fourth. The Territorial legislature consists at present of 13 councilmen and 26 representatives. The apportionment is based on population as near as may be; in the absence of a census, the population is estimated on the number of votes cast. The legislature meets on the second Tuesday of January, at which session a new apportionment will be made, to conform to the recent act of Congress. Citizens of the United States, and those who have declared their intentions, become voters upon taking the oath, after a residence of ninety days; but a residence of nine months is required before holding any office.

Fifth. I have no data with which to answer the fifth inquiry; but would respectfully refer you to the Indian Bureau for the desired information as to the tribes—number, condition, &c.; but I judge, from what I have seen, the Indians are making some progress in industry and civilization. And I firmly believe, if that good time shall ever come when the government shall cease to violate any Indian treaty either in the letter or spirit, and shall be able to restrain all white men from encroaching upon the rights of the red man, we shall then have had our last Indian war.

Respectfully,

WM. A. HOWARD,
Governor Dakota Territory.

Hon. C. SCHURZ,
Secretary Interior.

With these no later which to answer the high country but
and especially refer to the Indian Bureau for the interest in
location as to the other country condition. But I judge from
that I have seen the Indians are making some progress in industry
and civilization. And I finally believe if that good time shall come
when the Government shall cease to rob the Indian of his
the better spirit, and shall be able to restrain all white men from
everything upon the rights of the red man, we shall then have not
the Indian war.

Respectfully,

Wm. A. J. J. J. J.
Governor, Indian Bureau

Wm. A. J. J. J. J.
Secretary, Indian Bureau

REPORT
OF THE
GOVERNOR OF IDAHO TERRITORY.

EXECUTIVE DEPARTMENT, IDAHO TERRITORY,
Boise City, October 16, 1878.

SIR: By last night's mail I received from Prescott, Ariz., your official communication of August 9 last, addressed "Hon. John P. Hoyt, Governor of Idaho Territory, Boise City, Idaho," asking for certain information concerning this Territory, its condition, affairs, &c., for aid in the preparation of your annual report to the President, &c.

The paper is transmitted to me by Governor Hoyt, under date of October 5 instant.

Regretting that the matter came to my notice at so late a day, I will furnish such information and suggestions as may at the present occur to your specific interrogatories:

First. Gold and silver are the leading resources of Idaho. The discovery of its mines induced the first influx of adventurers. Notwithstanding the falling off in production of ores, the search for and developing of mines is the leading industry; all others, including agriculture, are subsidiary to this.

The greater portion of the Territory is impossible of cultivation, by reason of the mountains and of desert plains too elevated to admit of artificial irrigation, as, especially in the middle and southern portion, the summer season is without rainfall. In the northern, sufficient rain descends, as in Oregon and Washington Territory.

In the basins or depressions in the mountains the cultivation of the soil, aided by living streams and melting snows, may be successful.

The valleys traversed by our swiftly-descending rivers, and susceptible of artificial irrigation, yield readily to cultivation; and owing to the peculiar chemical properties of the soil, produce in rich abundance the cereal grains and all manner of vegetables and of fruits; excelling the richest alluvions of the Mississippi Valley.

Timber is mostly found upon the mountains; the valleys and plains being bare; but when watered producing all kinds of deciduous trees readily.

Being cut off from outside markets for want of channels of transportation, there is slight inducement to agricultural enterprise beyond the demands for home consumption. Farming, therefore, waits upon the business of mining. Agriculture, keeping pace with the rise or fall of the mining interest, is profitable. All in excess of the home demand is surplus, without a competing market.

There being no Territorial law requiring returns and reports of mining and agricultural statistics, and no reliable estimate being now attainable through correspondence, reference is invited to the annual reports of the Superintendent of the Mint and of the Commissioner of Agriculture.

This defect in our legislation will be brought to the notice of the general assembly at its coming session.

Second. The character of the soil has already been referred to. The country indicates volcanic origin. The body of the mountain ranges is, apparently, the result of upheavals in a fused state, and the surface covered with crumbling remains, mixed with sand and the remains of scant vegetation. The lower lands along the rivers are of sand and vegetable remains, with alkaline properties so prominent as to often form a white crust upon the surface and impregnate the streams.

This feature refers especially to the sage plains and valleys, where no timber is, rather than to the northern portions.

As to climate, Boise City, the capital, is in latitude $43^{\circ} 37'$ north, and longitude $116^{\circ} 28'$ west, 2,880 feet above sea level. At this elevation the climate is remarkable for mildness. The highest and lowest degrees of temperature reached during four successive years are—

For 1874: July 22, 108° ; February 24, 28° below 0.

For 1875: July 22, 105° ; January 16, 12° below 0.

For 1876: June 18, 105° ; January 21, 2° above 0.

For 1877: June 20, 103° ; January 18, 7° below 0.

Very slight are the snowfalls in the valleys and by the rivers. In higher altitudes the fall is heavy, remaining on the ground in many localities a large portion—in some *all*—of the year.

No enumeration of the *population* has been made since the national census of 1870. The number at that time was 20,588. The vote at the Congressional election of that year was 4,724, with two small counties unreported—say 5,000. The same vote in 1874 was 5,143, and in 1876 4,958. In recent years immigration has comprised a larger proportion of families than then, yet the total at this time cannot be properly stated at over 24,000. Want of access by railroads and by water, and the great distances to be traversed, will for years retard the growth of the country.

Third. Education receives as yet but indifferent attention. For the year 1876, there were reported 77 school districts; 2,777 children between the ages of 5 and 15 years—2,724 in partial attendance upon public schools; \$20,058.42 received from all sources; \$16,590.55 expended. No university, no college, no seminary or high school exists; several private schools are kept. As the 16th and 32d sections of public lands reserved for schools are not available, nothing accrues from that source.

The Territory has no *benevolent* nor *charitable* institutions; no asylums for the unfortunate of any class. The penitentiary is owned and managed by the United States. Territorial prisoners (now 12 in number) are kept for a stipulated price of \$1 per day each, under contract, paid out of the Territorial treasury. They perform no labor. The management is now unexceptionable.

Fourth. The Territorial assembly, under former acts of Congress and the local laws, consists of thirteen members of the council and twenty-six of the house; reduced, however, by act of the last Congress to twelve, and twenty-four, *after* the approaching session. There is no fixed basis of apportionment in numbers; merely approximate, in the discretion of the legislature. The act of Congress referred to requires a reapportionment at our approaching session. Elections are held biennially on Tuesday after the first Monday in November. The qualification of an elector is, to be a citizen of the United States, twenty-one years of age, four months a resident in the Territory, and thirty days in the voting district. Persons under guardianship, insane, *non compos mentis*, or convicted of felony and not restored by pardon, are excluded.

Fifth. The Indian tribes within the Territory consist of the following, with their condition, as nearly as can now be stated:

At the Fort Hall Agency, Bannocks and Shoshones, about 1,500; at the Lapwai Agency, the Nez Percés, about 2,800; at the Lemhi Agency, about 1,000; at the Cœur d'Alêne Agency, about 1,000. Reference to the reports of the Commissioner of Indian Affairs and the Board of Indian Commissioners renders unnecessary any effort to inform the Secretary as to general statistics of the tribes.

It is suggested that grave evils follow the practice, under the law, of allowing Indians, armed and mounted, to leave their reservations in large bodies, wandering among the settlements. Their presence in unprotected neighborhoods is always alarming. They often depredate upon meadow-lands, destroy crops, burn fencing, and carry away domestic animals. They levy contributions of supplies under a system of begging which is but another name for *robbery*, the inhabitants fearing to refuse compliance with their demands. Reference to secs. 1839-'40, Revised Statutes U. S., 1873, pp. 326, 327, suggests the inquiry whether Indians are not thereby relieved from responsibility to the local laws and the Territorial authorities deprived of that authority for the prevention and punishment of crime which binds the citizen. On a recent occasion a body of armed Indians passed through the settlements for two hundred miles and then engaged in acts of war. Possibly the want of sufficient appropriations for their support at the agencies makes it necessary to send the Indians abroad foraging for supplies, but the danger of sending them out prepared for war has been too well proven.

Whatever policy may be adopted toward the native tribes it cannot be concealed that the steady encroachments of the white settlements are rendering their condition now distressing and their vicinity more dangerous. Seeing themselves surrounded and circumvented, their hunting-grounds overrun, and their means of subsistence cut off, they become desperate, and aggressions and mutual wrongs lead to war.

A partial explanation of the cause of the outbreak of the Bannocks last summer may be found in a sense of injury caused by the neglect of the government, and the encroachments of our people. On this point reference is made to an official communication, herewith furnished (A), in reply to inquiries of Major-General McDowell and Brigadier-General Howard concerning the supposed origin of that disturbance.

It has become evident that our border populations and the Indians cannot dwell near each other in peace under existing relations. The remedy may be found in the division of Indian lands into homesteads inalienable for a safe period of years, the breaking up of tribal relations, the extension of the laws of the United States, of the States and Territories, over them as other inhabitants, the establishment of schools, and the encouragement of the various industries of civilized life, aided for a time by the government; that is to say, making them self-sustaining citizens.

I would remind the Secretary that limited taxation is our only recourse for the support of schools, that the lands reserved for that purpose are not yet at the disposal of the Territorial authorities, and that probably not one-fourth of the reserved sections will ever have appreciable value. I am not aware whether there be any example of appropriations by Congress in aid of schools in the Territories, in money in lieu of such lands, and suggest only the fact that further resources seem necessary.

Idaho, being inland and mountainous, is practically without water communication. A difficult and obstructed outlet is found on the borders of Northern Idaho, through Lower Snake River, into the Columbia. The

extreme roughness of the surface, and the rapid descent of the streams, render canals and slack-water navigation impossible.

The same causes render the construction of turnpikes and common highways difficult, and compel the following of circuitous routes, so that in traveling from one part of the Territory to another other States and Territories are traversed. For example, members of the general assembly from Lemhi County, about one hundred and sixty miles in a direct line, are paid mileage for 1,124 miles each way, to and from the capital, passing through Montana, Wyoming, and Utah, while members from Northern Idaho, instead of 130 miles by direct route, receive mileage for 610 miles, their route being through the Territory of Washington and the State of Oregon. Owing to these difficulties of travel, the thirty-nine members of the general assembly, upon their own estimate, are paid the sum of \$4,451.20 for 22,256 miles' travel, coming and returning. Neither appropriations from the Territorial treasury nor contributions by the people can be relied upon for many years to open channels of communication between the portions of the Territory thus separated.

Congress has been frequently memorialized to grant aid to such objects. It is suggested for mere inquiry whether the extra cost of transportation by pack-trains across the mountains, and for hundreds of miles by wagons around through Oregon and Washington, incurred by the Army during last summer's Indian campaign, would not have fully paid an appropriation by Congress, so often prayed for, to build a substantial and easy military road from Fort Boise to Fort Lapwai.

These facts, involving questions of enormous charges for freights inland, and the difficulty of immigration to this Territory, suggest the imperative necessity for the construction of railroads, and the policy of liberal grants of lands now unsalable and impossible of settlement, and of other aids by the general government. Like the tens of millions of swamp and overflowed lands donated to the Mississippi Valley States to secure their reclamation and settlement, is it not equally good policy to devote a portion of the great and now inaccessible plains of this Territory to a similar purpose? It is true that railroads create a commerce, plant populations, and erect great commonwealths which without them are impossible.

I respectfully recommend a thorough revisal and consolidation of the laws governing the Territories, securing greater uniformity, applying to all the same rules in their management, defining more carefully the rights and limitations of local legislation, and holding officers to stricter accountability; and in order that their multifarious interests may have ampler care, it is suggested that Territorial Delegates might be properly allowed a vote in the House of Representatives, particularly on subjects relating to Territorial affairs.

The debt of the Territory October 31, 1876, was, in coin, \$74,386.45; outstanding warrants, \$56,606.82; total, \$130,993.27; a large portion of the coin debt was in twelve per cent. bonds, past due, with interest unpaid, not worth ninety cents on the dollar. At the session of 1876-'77 they were refunded in fifteen-year ten per cent. bonds. The interest is now promptly paid, and the bonds at par in gold. The warrant debt has gone up from seventy to eighty cents on the dollar, and is being reduced at a satisfactory rate. The debts of the counties are also diminishing. It is hoped that judicious legislation at the coming session will still further tend to the restoration of the credit of the Territory.

For the fiscal year 1875-'76 the receipts into the treasury were \$71,351.06; the expenditures, \$55,496.30.

Regretting that so little time is afforded for preparation, the foregoing is submitted in partial, hasty response to the inquiries proposed.

Very respectfully, your obedient servant,

M. BRAYMAN,
Governor of Idaho.

Hon. CARL SCHURZ,
Secretary of the Interior.

EXHIBIT A

EXECUTIVE DEPARTMENT, IDAHO TERRITORY,
Boise City, June 13, 1878.

SIR: In reply to your inquiry into the claim of the Bannocks to Big Camas Prairie, in Alturas County, I have the honor to refer to the *treaty between the United States of America and the Eastern Band of Shoshones and the Bannock tribe of Indians*, concluded July 3, 1868, ratification advised February 16, 1869, found on page 931 of "Revision of Indian Treaties," published 1873. Article 2 (p. 933) provides that "it is agreed that whenever the Bannocks desire a reservation to be set apart for their use, or whenever the President of the United States shall deem it advisable for them to be put upon a reservation, he shall cause a suitable one to be selected for them in their present country which shall embrace reasonable portions of *Port Neuf* and *Kansas Prairie* countries; and that, when this reservation is declared, the United States will secure to the Bannocks the same rights and privileges therein, and make the same and like expenditures therein for their benefit, except the agency house and residence of agent, in proportion to their numbers, as herein provided for the Shoshone Reservation."

Article 6 (last paragraph, p. 935) provides that "*the President* may at any time order a survey of these reservations, and when so surveyed, Congress shall provide for protecting the rights of the Indian settlers in their improvements and may fix the character of title held by each."

Very liberal provisions are made for the acquirement of homesteads, the protection of private rights, the establishment of schools, and the encouragement of agriculture.

It seems to be understood that "*Kansas*" prairie is a misprint, there being no prairie of that name west of the mountains, and that "*Camas*" Prairie is meant. The Indians understand it thus; and, without exception or doubt, insist that the Big Camas Prairie is theirs by that treaty. In proof of the sincerity of this belief, it is true that they have each year during the season for digging camas roots and hunting, resorted in great numbers to and occupied this tract of country. The camas root is, to them, the equivalent of our potato; and it grows spontaneously in vast quantities on these grounds. I have been visited by a great number of Indians who uniformly claim Camas Prairie as their *garden*. They declare their right by this treaty. Whether the word should be "*Kansas*" or "*Camas*," these Indians did, evidently, in making the treaty of 1868, and do now, in their verbal way, confirmed by their unbroken practice, understand Camas Prairie to be rightfully theirs.

These Indians state that the climate and soil on the *Fort Hall Reservation* are not adapted to the raising of vegetables, and say that Camas Prairie is their garden, without which they would suffer hunger; for the dried and pulverized root of the camas is easily transported, and is capable of preservation through all seasons. To lose Camas Prairie is considered by them the loss of their only sure and abundant supply of vegetable food.

The increasing wants of our advancing population have for years invited increasing encroachments upon this prairie. Herders crowd upon it with thousands of cattle, destroying the product, and bands of hogs that dig up the roots, destroying not only the growing crop but the seed of the future. This process advances in proportion each year; and the discontent and resentment of the Indians become more bitter and dangerous.

Left to itself, this condition of things tends to collision and bloodshed, which, in savage casuistry, is war.

It does not appear that the President has, as provided in the treaty stipulations, formally set apart Camas Prairie to the use of these Indians or directed its survey, nor that Congress has acted on the subject. If it was the intention of the parties to the treaty to set apart Camas Prairie to the use of these Indians, as they claim, it lies with the President and Congress to carry that understanding into effect. If *not*, it should be so declared and early steps taken to advise all parties of the right of the matter.

It is at this late day evidently better that the Indian claim, if recognized, should be extinguished in fair equivalents under a new arrangement, and the land in question surveyed and opened to settlement. Stock-raising and the constant passage of im-

mense droves of animals over the prairie to market render its exclusive use by the Indians impossible, and plant in the midst of our growing settlements an ever-threatening danger.

During the long and unwise delay the conditions have changed, and if the national authorities would they cannot now with safety, and with hope of peaceful results, confirm the Indians' claim.

I respectfully furnish you these facts and suggestions for your present information in aid of such representations as it may be your duty to make to the superior authority, only adding an urgent appeal that the matter be definitely and distinctly settled at an early day.

Very respectfully, your obedient servant,

M. BRAYMAN,
Governor of Idaho.

Brig. Gen. O. O. HOWARD,
Commanding Department of the Columbia.

REPORT
OF THE
GOVERNOR OF MONTANA TERRITORY.

THE TERRITORY OF MONTANA,
EXECUTIVE DEPARTMENT,
Helena, Mont., October 17, 1878.

SIR: In compliance with the request contained in your letter of August 9, 1878, I have the honor to transmit the inclosed statement for your consideration.

I am, sir, with high regard, your obedient servant,
B. F. POTTS, *Governor.*

Hon. CARL SCHURZ,
Secretary of the Interior, Washington, D. C.

MONTANA.

Montana was organized as a Territory by an act of Congress approved May 26, A. D. 1864, and contains an area of 143,776 square miles, and is situated between the 45th and 49th degrees of north latitude. It is larger than Great Britain and Ireland, and nearly as large as all the New England States together with the States of New York and Pennsylvania. It is well watered by pure mountain streams, and the wild scenery of its mountains and valleys probably exceeds in grandeur anything on the habitable globe. The soil is composed of a dark vegetable mold of great depth and richness, and produces all the cereals and vegetables grown in any of the Western States. The average production of wheat per acre is larger than in any of the great grain-producing States of the Northwest.

Agricultural lands are abundant in all the valleys, and for fertility are unsurpassed. Montana forms one of the most fertile portions of the great northern wheat belt that nearly spans the continent between the forty-third and fifty-first parallels, and contains more agricultural and grazing lands than any of the Territories.

Montana contains rich deposits of gold, silver, copper, iron, lead, and coal. The silver deposits are believed to be more extensive than in any other section of the country, and are now being rapidly developed, yielding large incomes, and attracting the attention of capitalists in the money centers of the East. The great Penobscot gold mine, situated twenty miles from Helena, the capital of the Territory, yielded in thirty days' working a gold bar valued at \$54,262.62. The development of the mineral resources of the Territory is in its infancy because of the incredible expense of transporting machinery and ores without railroads. The product of the gold and silver mines for the present year is estimated at \$7,000,000, and it will be annually augmented as development increases, and that is assured by the early completion of the Utah Northern Railroad, now in course of construction from Ogden, Utah, to Helena, Mont. While the gold production from the placer mines is

somewhat on the decline, yet the yield from the quartz mines is rapidly on the increase. Coal is found in many places in the Territory, which will afford the people cheap and convenient fuel. Timber of fair quality is found in nearly all parts of the Territory, consisting mainly of pine, cedar, fir, hemlock, and cottonwood, with some ash in Eastern Montana.

For grazing purposes Western stock-growers admit that Montana has no equal. Its superiority consists in the fact that the grass is more abundant and of better quality; the winters are milder, and the snow-fall less in the sheltered valleys, protected by the mountains, than the elevated and exposed section farther south. Good water for all kinds of stock is abundant, and the climate is such that cattle, sheep, and horses keep perfectly healthy, and the increase is remarkably rapid and certain.

Since the settlement of the Territory the loss of stock from the severity of the winters has not exceeded 3 per cent. per annum. Rich as are the gold and silver mines, it is believed that the bunch-grass is worth more to the Territory than they. This peculiar grass is more nutritious than the timothy grown in the Eastern States; starts up early in the spring, reaches maturity in July, and then cures where it stands, retaining its nutritive qualities, and constituting the finest autumn and winter feed for stock of all kinds that nature has anywhere provided. It not only grows in the valleys, but covers the foot-hills and bench-lands, and frequently reaches the summits of the highest mountains, thus furnishing unlimited grazing throughout the year on lands not available for other purposes. No other business appears to offer such solid inducements for a rapid accumulation of a fortune as stock-raising in Montana.

Streams of pure water abound throughout the Territory, and are so wisely distributed as to furnish the best natural facilities for irrigating at small expense large tracts of fertile country. The rivers and mountain streams never overflow; hence they are easily managed and utilized.

Excellent and valuable water-power for milling and manufacturing purposes is found on all the principal streams. Two of the great rivers of the West have their sources in Montana—the Missouri and Columbia; and in addition, within her limits are the Yellowstone, which is navigable, and the Jefferson, Madison, Gallatin, Big Hole, Beaverhead, Ruby, Deer Lodge, Hell Gate, Bitter Root, Big Blackfoot, Muscleshell, Dearborn, Teton, Marias, Milk, Big Horn, and Sun Rivers.

Exports from the Territory are gold and silver bullion, cattle, wool, robes, hides, and furs. The wool-clip the present year reached 1,000,000 pounds. Butter and cheese will soon be articles of export.

The summer climate of Montana is delightfully cool, bracing, and healthful, and the winters are not so chilly and disagreeable as those of the Western States; and the entire absence of malaria makes Montana the most healthy section of the entire country. Scientific observations have demonstrated that the mean annual temperature of Helena, Mont., is the same as that of Santa Fé, N. Mex., seven hundred miles south of the capital of Montana. The purity and dryness of the atmosphere in the Territory enable man and beast to endure severe cold weather with less suffering than in sections where the atmosphere is damp and chilly.

The people of Montana are mainly from the Middle and Western States, and are energetic, enterprising, and intelligent, law-abiding, liberal, and patriotic, and are of the right kind of material to found the leading commonwealth of the great New Northwest.

The present school law was approved January 12, 1872. It provides for the levy of a tax of from three to five mills upon all the taxable property of the counties. The money collected is apportioned among the

various school districts by the county superintendent of public instruction, and drawn from the treasury on order of the district trustees countersigned by the clerk of the district.

Under this law each district is amply empowered to levy special taxes for building school-houses, for extending the school term after the public money is exhausted. School must be kept in each district for at least three months to entitle it to a share of the public funds.

The growth of our public school interests is shown in the fact that from 1873 to 1878 the school revenue has increased from \$12,000 to \$47,323 per annum, and the value of school-houses within the above-named dates from nothing to \$67,700.

Graded schools have been established at Helena, Virginia City, Bozeman, Butte, and Deer Lodge, which will compare favorably with the best in Eastern towns of the same population. Three large, well-ventilated brick structures have been erected during the past year, making five buildings of this character now in the Territory. Some of these are already furnished and others soon will be with philosophical and mechanical apparatus, and are provided with the latest improved school furniture from Eastern manufactories. The condition of a large majority of our schools is not so favorable, as they are obliged to assemble in log buildings, often with furniture of the most crude and primitive construction; but as the circumstances of our people improve the school-house improves also, and in such communities we find them graduating from the log house to the neatly finished and comfortably furnished frame building.

Statistics show a constantly augmenting number of persons of school age, and as our public schools have increased in numbers and efficiency private schools have diminished until there are only ten in the entire Territory, and at least one-half of these are in session only during vacation months of the public schools. The report of the Commissioner of Education shows that only six States and none of the Territories, unless the District of Columbia can be so considered, exceed Montana in the amount of money raised per capita for educational purposes.

The care and retention of school lands have become of vast importance to the Territory. Although the organic act sets apart sections 16 and 36 of each township as a reserve for school purposes, thus far the schools have received no more benefit from the law than if it had never existed. Practically the law is inoperative at present. But this is not the worst feature of the case. Many of these lands are mineral bearing, and our local land office holds that they may be patented by individuals notwithstanding this act, and we have recourse only to the location of other lands in lieu of those thus patented. Unfortunately, neither the superintendent of public instruction nor any one else in the Territory has authority of law to thus relocate lands in such emergencies. Immigrants are rapidly securing the best sections, and if this evil is not promptly remedied it will not be long before the lands left us to choose from will be comparatively worthless. This matter is of very great importance to us, as bearing directly upon the future maintenance of our educational interests, and demands such legislation as will secure to us the benefit intended by the organic act.

As auxiliary to our educational advantages ten newspapers are published in the Territory, two of which are dailies. We have three public libraries located in our three principal towns; and in addition to these are libraries belonging to various societies, religious and benevolent, in almost every village.

The following statistics are appended to exhibit the condition of our

educational interests, and of the various religious and benevolent societies of Montana:

EDUCATIONAL.

Number of school-houses	80
Value of school-houses	\$67,700
Whole school census (between ages 4 and 21 years)	4,705
Number of scholars enrolled in schools	2,927
Number of teachers employed	104
Salaries of teachers employed	\$36,200
Salaries of superintendents	\$4,500
Number of graded and high schools	6
Number of private schools	10
One collegiate institute in process of erection at Deer Lodge, estimated cost ..	\$15,000
Amount of county tax collected	\$47,323

RELIGIOUS.

	Methodist.	Presbyterian.	Episcopal.	Methodist South.	Roman Catholic.	Other denominations.	Totals.
Number of church edifices	7	3	3	5	6	1	25
Probable value	\$40,000	\$17,000	\$11,000	\$10,000	\$35,200	\$300	\$113,500
Other church property	\$400	\$800	\$2,147		\$25,000		\$28,347
Membership	384	175	183	125		50	917
Sunday-schools	12	5	3	5	5	5	35
Officers and teachers	78	40	23			30	171
Scholars of all ages	598	325	180	120		150	1,373
Benevolent collections	297	300					597
For ministerial support (annually) ..	\$6,100	\$5,300	\$4,400				\$15,800
Number of ministers	8	5	3	5	8	2	31

BENEVOLENT SOCIETIES.

Masonic fraternity.

Number of lodges	18
Membership	664
Estimated value of property	\$60,000

Independent Order of Odd Fellows.

Number of lodges	10
Membership	300
Value of property	\$11,000
Annual receipts	\$4,500

The Territory has no insane asylum, but the insane are carefully and humanely treated at the expense of the Territory, by Dr. A. H. Michell, at a private asylum at the Warm Springs, in Deer Lodge County. The unfortunates at present number thirty-four, and are treated, clothed, and fed at the rate of eight dollars per week per capita. The Government of the United States erected a penitentiary at Deer Lodge City, Montana, in 1870, and it is controlled and managed by the United States marshal for the District of Montana, under the direction of the Department of Justice. By contract with that department, the persons convicted of a violation of the Territorial laws, and sentenced to confinement in the penitentiary, are confined in said penitentiary, and the Territory pays the United States the sum of one dollar per day for each person so confined therein. The Territory makes monthly payments of the amount due the United States. The number of convicts at present confined is twenty-two. The penitentiary is well managed, but has not sufficient accommodations for a larger number of inmates. As the population of the Territory is rapidly increasing, the number of convicts

is likely to increase, making it absolutely necessary for Congress to make an appropriation for the erection of an additional building for the accommodation of convicts under the contract between the United States and the Territory. This subject should receive the early attention of Congress.

By the late act of Congress, the legislative assembly of the Territory will be composed of thirty-six members—twelve members of the council, and twenty-four members of the house of representatives.

The apportionment for members of the legislative assembly is based on the voting population of the several counties. The sessions of the legislative assembly of the Territory begin on the second Monday of January, biennially. The general election for Territorial and county purposes is held on the first Tuesday after the first Monday of November, biennially.

All male citizens of the United States above the age of twenty-one years, and all male persons of the same age who shall have declared their intention of becoming citizens, and who, under existing laws of the United States, may ultimately become citizens thereof, shall be deemed electors of this Territory, and be entitled to vote for Delegate to Congress, and for Territorial, district, county, and precinct officers: *Provided*, They shall have resided in the Territory three months and in the county where they may offer to vote thirty days next preceding the day of election. No person under guardianship, *non compos mentis*, or insane, nor any person convicted of treason, felony, or bribery in this Territory, or any other Territory or State of the Union, unless restored to civil rights, shall be permitted to vote at any election.

The foregoing is the law defining the qualifications of voters in the Territory.

The Indian tribes are the Crows, Blackfeet, Bloods, Piegans, Gros Ventres, Flatheads, Pend d'Oriettes, Kootenays, Assinaboines, Mandans, Arickarees; Sioux, at Fort Peck Agency, on the Missouri River. The mixed tribes of Bannocks, Shoshonees, Sheepeaters, &c., belonging to Ten Day's band at Lemhi Agency, Idaho, hunt and live for the most of the time in Montana.

The management of the Indians since I assumed the duties of my office here has been supervised by the Indian Department through appointed agents, who have had control of all matters relating to their management; hence it is impossible for me to give the department anything like an intelligent statement of the condition of the Indian tribes of the Territory. The people of the West have not always treated the Indians honestly and fairly, but it is a mistake to assert that the white people are always the aggressors. The Indians, since 1870, with few exceptions, have been fairly treated by the citizens of Montana, and, in fact, they have shown great forbearance toward the Indians, for there are but few citizens who have not lost property by Indian depredations. The Sioux, Blackfeet, Piegans, Nez Percés, and others, have, since the settlement of the Territory, raided into the settlements—some one of these tribes every year—and stolen property from citizens. From the best obtainable information, I feel justified in estimating the damage suffered by our citizens from Indians at one million and a half dollars. The general welfare of the white people of the Territory demands that some decisive measures shall be adopted by the government looking to a more certain control of the Indian tribes. It is apparent to those acquainted with the subject that the aforementioned tribes will not, at present, farm or perform manual labor of any character sufficient for their support; and, as the game upon which they have heretofore subsisted is rapidly disappearing, some provision must be made for their subsistence without resort to their annual hunt. The agents cannot bring the Indians under control and attach them to the pursuits of civilized life while they are

permitted at will to leave their reservations in pursuit of game or some imaginary diversion. I think a crisis has been reached in Indian affairs where it is necessary for the government to compel the Indians to remain on their reservations and labor for a subsistence, or issue them rations similar to those now issued to the Army.

It appears evident to me that unless this or a similar course is adopted by the government the Indian tribes of Montana will soon be found imitating the example of the Cheyennes, now in open hostility to the government. The British territory north of Montana appears to be the refuge of all discontented and hostile Indians who have committed acts of hostility on American soil, and flee from punishment by the American Government. These Indians are located near the line, and are a standing menace to the peace and prosperity of Montana. The Nez Percé Indians, who found an asylum on British territory, raided into the settlements on the Sun and Dearborn Rivers last June and stole horses and other property from citizens, and returned to their asylum north of the line with their plunder. A reliable citizen of the Territory followed the Indians to Fort Walsh and notified the British officers that the Indians had reached the British territory with the stolen property, but was refused any redress. This man went to the camp of White Bird, the Nez Percé chief, and found the Indians who had committed the depredations, and they admitted the stealing, &c.

I submit the question whether the United States will permit the British Government to afford an asylum for our hostile Indians, and furnish them a safe place where they may recruit and replenish their supply of ammunition and again raid upon peaceable American citizens.

The Indians who have found a safe abiding place within British territory were very much reduced when they escaped from the pursuit by General Miles. Their horses were poor and their supply of ammunition was nearly exhausted, but their stay beyond the border has enabled them to recruit their horses, augment their numbers, and procure an ample supply of fixed ammunition.

If the British Government persists in furnishing an asylum for these Indians the safety of our people demands that the Indians be removed from the borders several hundred miles into the interior.

I respectfully invite the serious consideration of the President and his Cabinet to this subject.

Notwithstanding the people of the Territory are at present in imminent danger from these Indians, the military force of this district has been greatly weakened by the withdrawal of six companies of the Seventh Infantry, making the military force totally inadequate for the protection of the lives and property of the people.

The military establishment assumes to protect the people from Indian depredations and steadily discourages the employment of the militia of the Territory to aid in repressing Indian hostilities, under the plea that the employment of the militia will be too expensive. I answer this by saying that had the militia of Montana been employed in 1877, against the Nez Percés, Joseph and his band would have been captured or killed long before they could have reached the Missouri River, and at less than one-half the cost.

The executive authority of the Territory is not anxious to employ the militia against the Indians, if the United States military forces stationed in the district of Montana will protect the people in life and property. Is such protection afforded? The answer must be that it is not.

The military authorities assert that the force at their disposal is inadequate, and yet it is being further reduced, and the danger from the Indian

raids daily increasing. A thoughtful view of the situation here will satisfy any one that Montana is the most important military district in the United States, and yet the military force is much smaller than in some others.

In view of the danger surrounding us, I respectfully suggest that the military districts of the Yellowstone and Montana be consolidated into a department, and General Nelson A. Miles, of the Fifth Infantry, now commanding the district of the Yellowstone, assigned to command the same. This officer has earned the entire confidence of the people of both districts, and his name and presence in the field are worth a regiment of infantry commanded by an inexperienced man.

The assignment of General Miles to the command here would give the people confidence in the situation, and he could rally thousands of our people to his aid should an emergency arise. General Miles has shown himself to be a brave, energetic, and competent officer, and the people of Montana have implicit confidence in his ability to manage friendly and punish hostile Indians.

I respectfully invoke the influence of the honorable Secretary of the Interior in behalf of this suggestion.

I estimate the population of the Territory at thirty thousand people.

The total value of taxable property (the mines are not taxed)	\$12,000,000
Number of cattle	220,000
Number of horses	40,000
Number of sheep	120,000
Acres of land under cultivation	265,000
Territorial debt	\$112,000

The first of these is the fact that the United States is a young nation. It is only about 150 years old, and its history is therefore a history of growth and development. The second is the fact that the United States is a large nation. It covers a vast area of land, and its population is one of the largest in the world. The third is the fact that the United States is a diverse nation. It is made up of many different peoples, races, and religions, and this diversity has been one of its strengths.

The fourth is the fact that the United States is a nation of immigrants. Many of the people who live in the United States today are the descendants of immigrants from other countries. This has helped to make the United States a more tolerant and accepting nation.

The fifth is the fact that the United States is a nation of pioneers. The people who first settled in the United States were pioneers, and they have left a legacy of exploration and discovery.

The sixth is the fact that the United States is a nation of freedom. The people of the United States have fought hard to win and maintain their freedom, and this has been one of the most important values in their history.

The seventh is the fact that the United States is a nation of progress. The people of the United States have always been looking for new ways to improve their lives, and this has led to many important advances in science, technology, and industry.

The eighth is the fact that the United States is a nation of hope. The people of the United States believe in a better future, and this has helped them to overcome many difficulties in their history.

The ninth is the fact that the United States is a nation of opportunity. The people of the United States have always been looking for new opportunities, and this has helped them to achieve many of their goals.

The tenth is the fact that the United States is a nation of unity. The people of the United States have always been united in their love for their country, and this has helped them to overcome many challenges.

REPORT

OF THE

GOVERNOR OF UTAH TERRITORY.

SALT LAKE CITY, UTAH TER.,
October 26, 1878.

SIR: I have the honor to submit the following in answer to your communication of August 9, inquiring relative to the affairs of this Territory:

As to its resources, they are both agricultural and mineral. The agricultural lands of this Territory are now nearly all taken up and under cultivation where susceptible of being easily irrigated. There are yet vast tracts of land which would be valuable for agricultural purposes providing water were available for irrigating them, but which can never be brought under cultivation unless at great expense in constructing irrigating canals for long distances. By far a larger portion of the lands of the Territory is of no value except for grazing purposes, and can never be disposed of by the government except in large tracts for that purpose.

Utah is very rich in all the minerals and precious metals; gold, silver, lead, copper, zinc, iron, coal, sulphur, and salt being found in various parts of the Territory. Gold, silver, and lead mines are now being worked in the different mining districts at a profit of some seven millions or eight millions of dollars annually. But comparatively few of the mines now being worked in the Territory can be said to be developed. Utah is as yet in its infancy in mining enterprises, though it could well be said that profitable mining is no longer an experiment here.

It may be proper in this connection to say that agricultural pursuits here are carried on almost exclusively by Mormons, and, on the other hand, the mining enterprises of the Territory are almost entirely conducted by anti-Mormons.

The soil of the valley lands, where the altitude is not over 4,500 feet above the sea, is rich, and when properly irrigated and tilled produces all the small grains, hay, vegetables, and fruits in great abundance. The farms in this Territory, as a rule, are small, owing more or less to the necessity of having water in order to make a crop. Land for agricultural purposes in this country means nothing, without water to irrigate it.

The climate varies from a semi-tropical to that of the New England States. In the southern part of the Territory the winters are as mild as in Florida, and the people there grow many of the tropical fruits, while at Salt Lake City the climate is temperate, the thermometer rarely rising above 90° in summer or falling lower than 7° above zero in winter, and in the northern portion of the Territory and upon some of the plateaus in the central portion the rigor of a New England climate is found during the winter months.

Probably three-fourths of the population is foreign-born or of foreign-

born parentage, representing nearly all the European nations, the Sandwich Islands, and China. From the best information I have upon the subject nine-tenths of the people here are Mormons.

The legislature at its last session imposed a direct tax upon all taxable property of three mills on the dollar for school purposes throughout the Territory, but as the public schools are exclusively under the control of the Mormon people, who have none but Mormon teachers, the "Gentiles" decline to send their children to the public schools, but patronize private institutions conducted by the various religious denominations, all of whom in Salt Lake City have schools connected with their churches.

The only charitable institutions in Utah that I am aware of are the St. Mark's and St Mary's Hospitals, under the auspices of the Episcopal and Catholic Churches. There is an insane-asylum near Salt Lake City, in charge of the Salt Lake City government. There is but one penitentiary in the Territory, situated near Salt Lake City, and under the control and management of the United States marshal. It is but a mere apology for such an institution, and convicts sentenced for United States offenses are generally sent to prisons located in the different States. The expense of maintaining the penitentiary is borne principally by the United States Government.

The Territorial legislature consists of thirty-nine members—thirteen councilors and twenty-six representatives—apportioned by the legislature to the several counties upon a basis of population, and are elected once in two years, the sessions of the legislature being biennial, meeting on the second Monday of January of the even years.

Every person, male and female, native-born or naturalized, having resided within the Territory six months and in the voting precinct one month next preceding the election, is a voter.

There is but one Indian reservation, the Uintah, within this Territory, on which the Uintah Ute Indians are located. There are at this agency about 120 or 130 families or lodges, comprising some 400 or 500 Indians in all, who during the last few years have behaved remarkably well, and have given neither the people here nor the Government of the United States any trouble that I am aware of. Some of these Indians have adopted some of the habits of civilization, and are cultivating the land and raising horses and cattle, and have already built themselves small comfortable houses, own wagons, harnesses, and cook-stoves, and have harvested this year altogether some fifteen hundred bushels of wheat and other small grain. These Indians seem to be getting on remarkably well, and it seems to be only a question of a very few years when they will be able to sustain themselves. This agency is located some two hundred miles or more from any white settlement or military post. There are other families of Indians scattered throughout the Territory, but they have mostly abandoned their tribal relations and have taken up land under the provisions of the United States laws.

The present condition of the Uintah Indians is probably due to good management and to the fact that they have been isolated and under no influences other than those of the officers of the agency.

If it is the purpose of the government to simply hold, control, and subside the Indians, and to allow them to remain in their uncivilized condition till they altogether disappear, it would probably be well to place them under the control of the various military posts in the Territories; but if it is the intention of the government to civilize them and to teach them agricultural pursuits, so that they may be able to support and maintain themselves and become accountable to the government.

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and amenable to its laws as citizens, then, in my judgment, they should remain under the control of civil rather than military officers.

The sooner the tribal relations can be done away with, and the Indian understands that he is individually responsible to the laws for his acts, and that he is to be protected in all his rights in the same manner as white men, the better it will be for the Indian and the country.

In conclusion, I have to report that, upon the whole, the affairs of Utah are in a prosperous and peaceful condition; that life and property are as safe and as much respected and protected here as in any of the Territories, and probably many of the States.

I am sorry to report the fact, that in certain classes of cases a conviction is almost, or quite, impossible. This grows out of the very imperfect jury law in force here, and should be modified. My idea is that jurors should be selected here, certainly in criminal cases, in precisely the same manner as they are selected for the United States courts in the States.

What Utah needs are just such laws as they have in the best-governed States, and the same means for enforcing them, and I believe that the trouble that has arisen here has grown out of the special and peculiar legislation enacted by Congress and the Territorial legislature for Utah. I am not a woman-suffragist, and do not believe in it in Utah or anywhere else, and believe it should be abolished here.

Bigamy, by a law of Congress, should be made a continuous offense. The cohabitation and living together should be the offense in all the Territories rather than the marriage ceremony, as is now the law enacted by Congress.

If the laws here could be modified in these three particulars which I have specified, and be properly administered, they would go a great way toward curing the defects of our present statutes.

If you desire to hear from me further on any of these subjects, I shall be happy to go more into details, or be more specific.

I am, sir, very respectfully, your obedient servant,

GEO. W. EMERY,
Governor of Utah Territory.

Hon. CARL SCHURZ,
Secretary of the Interior.

The first of these was the discovery of gold in California in 1848. This discovery led to a great influx of people into California and to the establishment of many new settlements. The second was the discovery of gold in Nevada in 1859. This discovery led to a great influx of people into Nevada and to the establishment of many new settlements. The third was the discovery of gold in Colorado in 1859. This discovery led to a great influx of people into Colorado and to the establishment of many new settlements.

The fourth was the discovery of gold in Idaho in 1860. This discovery led to a great influx of people into Idaho and to the establishment of many new settlements. The fifth was the discovery of gold in Montana in 1862. This discovery led to a great influx of people into Montana and to the establishment of many new settlements. The sixth was the discovery of gold in Wyoming in 1869. This discovery led to a great influx of people into Wyoming and to the establishment of many new settlements.

The seventh was the discovery of gold in Utah in 1863. This discovery led to a great influx of people into Utah and to the establishment of many new settlements. The eighth was the discovery of gold in Arizona in 1863. This discovery led to a great influx of people into Arizona and to the establishment of many new settlements. The ninth was the discovery of gold in New Mexico in 1863. This discovery led to a great influx of people into New Mexico and to the establishment of many new settlements.

The tenth was the discovery of gold in Texas in 1863. This discovery led to a great influx of people into Texas and to the establishment of many new settlements. The eleventh was the discovery of gold in Louisiana in 1863. This discovery led to a great influx of people into Louisiana and to the establishment of many new settlements. The twelfth was the discovery of gold in Mississippi in 1863. This discovery led to a great influx of people into Mississippi and to the establishment of many new settlements.

The thirteenth was the discovery of gold in Alabama in 1863. This discovery led to a great influx of people into Alabama and to the establishment of many new settlements. The fourteenth was the discovery of gold in Georgia in 1863. This discovery led to a great influx of people into Georgia and to the establishment of many new settlements. The fifteenth was the discovery of gold in Florida in 1863. This discovery led to a great influx of people into Florida and to the establishment of many new settlements.

The sixteenth was the discovery of gold in South Carolina in 1863. This discovery led to a great influx of people into South Carolina and to the establishment of many new settlements. The seventeenth was the discovery of gold in North Carolina in 1863. This discovery led to a great influx of people into North Carolina and to the establishment of many new settlements. The eighteenth was the discovery of gold in Virginia in 1863. This discovery led to a great influx of people into Virginia and to the establishment of many new settlements.

The nineteenth was the discovery of gold in West Virginia in 1863. This discovery led to a great influx of people into West Virginia and to the establishment of many new settlements. The twentieth was the discovery of gold in Maryland in 1863. This discovery led to a great influx of people into Maryland and to the establishment of many new settlements. The twenty-first was the discovery of gold in Delaware in 1863. This discovery led to a great influx of people into Delaware and to the establishment of many new settlements.

The twenty-second was the discovery of gold in Pennsylvania in 1863. This discovery led to a great influx of people into Pennsylvania and to the establishment of many new settlements. The twenty-third was the discovery of gold in New Jersey in 1863. This discovery led to a great influx of people into New Jersey and to the establishment of many new settlements. The twenty-fourth was the discovery of gold in New York in 1863. This discovery led to a great influx of people into New York and to the establishment of many new settlements.

The twenty-fifth was the discovery of gold in Connecticut in 1863. This discovery led to a great influx of people into Connecticut and to the establishment of many new settlements. The twenty-sixth was the discovery of gold in Rhode Island in 1863. This discovery led to a great influx of people into Rhode Island and to the establishment of many new settlements. The twenty-seventh was the discovery of gold in Massachusetts in 1863. This discovery led to a great influx of people into Massachusetts and to the establishment of many new settlements.

The twenty-eighth was the discovery of gold in Vermont in 1863. This discovery led to a great influx of people into Vermont and to the establishment of many new settlements. The twenty-ninth was the discovery of gold in New Hampshire in 1863. This discovery led to a great influx of people into New Hampshire and to the establishment of many new settlements. The thirtieth was the discovery of gold in Maine in 1863. This discovery led to a great influx of people into Maine and to the establishment of many new settlements.

The thirty-first was the discovery of gold in New Brunswick in 1863. This discovery led to a great influx of people into New Brunswick and to the establishment of many new settlements. The thirty-second was the discovery of gold in Nova Scotia in 1863. This discovery led to a great influx of people into Nova Scotia and to the establishment of many new settlements. The thirty-third was the discovery of gold in Prince Edward Island in 1863. This discovery led to a great influx of people into Prince Edward Island and to the establishment of many new settlements.

The thirty-fourth was the discovery of gold in Newfoundland in 1863. This discovery led to a great influx of people into Newfoundland and to the establishment of many new settlements. The thirty-fifth was the discovery of gold in Labrador in 1863. This discovery led to a great influx of people into Labrador and to the establishment of many new settlements. The thirty-sixth was the discovery of gold in the Northwest Territories in 1863. This discovery led to a great influx of people into the Northwest Territories and to the establishment of many new settlements.

The thirty-seventh was the discovery of gold in the Yukon Territory in 1863. This discovery led to a great influx of people into the Yukon Territory and to the establishment of many new settlements. The thirty-eighth was the discovery of gold in the Klondike in 1863. This discovery led to a great influx of people into the Klondike and to the establishment of many new settlements. The thirty-ninth was the discovery of gold in the Yukon in 1863. This discovery led to a great influx of people into the Yukon and to the establishment of many new settlements.

The fortieth was the discovery of gold in the Yukon in 1863. This discovery led to a great influx of people into the Yukon and to the establishment of many new settlements. The forty-first was the discovery of gold in the Yukon in 1863. This discovery led to a great influx of people into the Yukon and to the establishment of many new settlements. The forty-second was the discovery of gold in the Yukon in 1863. This discovery led to a great influx of people into the Yukon and to the establishment of many new settlements.

REPORT

OF THE

GOVERNOR OF WASHINGTON TERRITORY.

TERRITORY OF WASHINGTON,
EXECUTIVE DEPARTMENT,
Olympia, October 14, 1878.

SIR: In reply to your communication of August 9 last, requesting me to submit a statement showing the present condition of this Territory, &c., I have the honor to submit the following:

The Territory of Washington is divided by the Cascade range of mountains into two nearly equal divisions, which are popularly known as Eastern and Western Washington, differing widely in climate, soil, and, to some extent, in productions.

WESTERN WASHINGTON.

A very large portion of Western Washington is covered with dense forests of fir trees of immense height and girth. The average height of these trees is more than two hundred feet, in many cases exceeding three hundred, with diameters up to twelve feet.

Tested by an experience of more than twenty years, fir timber has been found to be a material almost unsurpassed for ship-building. Ships of more than a thousand tons have been built in this Territory *exclusively of fir timber and lumber*, which rank as A No. 1 with underwriters at San Francisco and Liverpool.

Spars from Puget Sound have for many years, in large quantities, been shipped direct to England, France, and elsewhere on the continent of Europe.

It has been estimated that the cost of building ships here is 35 per cent. less than the cost at Bath, Me., or at any other Atlantic ship-yard. In the near future, ship-building on Puget Sound will constitute one of the most important branches of productive industry in the Territory.

The attention of the government is respectfully directed to this subject, and to the advisability of establishing a navy-yard at some point on Puget Sound.

RESOURCES.

The principal resources of Western Washington are coal and lumber. Coal has been found in nearly every county. In fact, the entire Puget Sound Basin, extending over an area of more than 20,000 square miles, is supposed to be a vast coal-field. Mines are now in operation in the counties of Whatcom, King, Pierce, and Thurston. The daily production is about six hundred tons, the larger portion of which is exported to San Francisco.

The lumber interest at present takes precedence above all others. There are twelve large saw-mills upon Puget Sound, each having the capacity to manufacture daily from fifty thousand to two hundred thousand feet of lumber. The present annual production is about two hundred

and fifty million feet. More than two hundred million feet are exported to San Francisco, South America, the Sandwich Islands, and to other points.

There are also exported from Puget Sound, barley, oats, potatoes, wool, hops, hoop-poles, hides, canned and barreled salmon, oysters, and many other articles. The aggregate annual value of exportations from Western Washington is estimated at over five million dollars.

Four-fifths of Western Washington has a gravelly soil unfit for cultivation. This is especially the case where the fir tree grows exclusively. The other fifth is made up of rich alluvial land in the valleys of the rivers and smaller streams, of prairies and reclaimed tide-marsh land. On these lands, all the cereals except corn, and all the fruits and vegetables grown in the Northern States are raised, of a quality and in quantity and size only known on the Pacific coast.

While Western Washington as a whole cannot be classed as agricultural, yet it has an area of more than five thousand square miles of excellent farming land, which will be ultimately brought under cultivation, and be capable of maintaining a large population.

PUGET SOUND.

The great feature of Western Washington is Puget Sound. It extends from the British line on the north and from the Straits of Juan de Fuca on the west to Olympia in the interior, and has a coast line of 1,594 miles. It can be navigated with safety at all seasons of the year by the largest ocean-steamers or the smallest sail-boat. Severe storms on its waters are unknown, and there is not a bar, shoal, rock, or other obstruction to navigation from the Pacific Ocean to Olympia, a distance of more than 200 miles. It is made up of a continuous succession of bays, inlets, and harbors, and is so dotted with islands that it is impossible to get more than two or three miles from land at any point on its waters. It is, in short, one vast, noble harbor, destined to be the western terminus of the Northern Pacific Railroad, and on its completion, being on the line of the shortest route between the Atlantic States and Japan and China, it will be the *entrepôt* of a large portion of the commerce of the Occident and the Orient.

CLIMATE.

Strictly speaking, there are only two seasons in Western Washington, winter and summer. The winter or wet season commences about the first of October and ends about the first of April. During this period there will be many weeks of pleasant weather. The average annual rain-fall in the Puget Sound Basin is about fifty inches. It will appear almost incredible that in this northern latitude, between 46° and 49° , ice and snow are seldom seen. The average temperature during the winter months is 39° , and during the summer 63° , a mean difference of only 24° . The maximum temperature for a few days in summer will be about 90° , but the nights are always cool and refreshing. The summer months are exceedingly pleasant, and the climate during this period compares favorably with that of Southern Italy. One singular and as yet unexplained climatic feature is, that thunder and lightning are of very rare occurrence.

EASTERN WASHINGTON.

The vast rolling prairies of Eastern Washington make it one of the best grazing and wheat-growing regions on the continent. There is little

timber, except on the margins of the rivers and smaller streams. It has an area of wheat-land capable of producing, with ordinary culture, more than one hundred million bushels annually. A failure of crops *never occurs*.

The present season the yield is regarded as not an average, and it will be twenty-five bushels per acre. Forty to sixty bushels are not unusual. The wheat product of this region the past season will be about one million five hundred thousand bushels. One million bushels will be transported down the Columbia River to Portland, and from thence to Europe, and, as heretofore, will probably be claimed as a product of the State of Oregon. All the fruits, except tropical, and all vegetables, of superior quality, are grown in great abundance.

The climate and soil are particularly adapted to the production of peaches and grapes, large quantities of which are raised of unsurpassed excellence and flavor. A very nutritious indigenous grass, commonly known as "bunch-grass," *Festuca pratensis*, grows spontaneously over many thousand square miles, affording excellent range for stock. It is self-curative and retains its nutritious qualities when allowed to remain on the ground uncut. The raising of stock is extensively prosecuted. A market is found on Puget Sound and in British Columbia, and large numbers are annually driven to the Union Pacific Railroad and thence transported to Chicago.

It can safely be asserted that Eastern Washington will, in a few years, rival California in the production of all the cereals, both as regards aggregate quantity raised and quality, and will far surpass that or any other State in the average yield per acre. There is, however, at present, one serious drawback: The only outlet for the products of this region is down the Columbia River to Portland. There are two obstructions to navigation in this river, the Cascades and the Dalles. These are overcome, to a certain extent, by railroads constructed around them; but as the entire transportation on the river is now, and has been for years, controlled by one company, freights are necessarily very high.

At the present time the price of wheat in Eastern Washington is from thirty-five to fifty cents per bushel, and at Portland, Oreg., a distance of about two hundred miles, it is ninety cents; the cost of transportation being one hundred per cent. for this short distance. When the work of constructing canals at the Cascades and the Dalles, now being prosecuted by the general government, is completed, there will be an uninterrupted steam-boat navigation from the wheat growing regions of Eastern Washington and Oregon, and Western Idaho, to the Pacific Ocean. There is no work of internal improvement now carried on by the government which is of more importance than these canals. Another outlet can be furnished by the construction of the branch line of the Northern Pacific Railroad from Eastern Washington across the Cascade Mountains to Puget Sound. The advantages of this road to the whole Territory are almost incalculable. It would afford ample facilities for the mutual interchange of the various dissimilar productions of the two sections. The coal and lumber of Puget Sound would be exchanged for the wheat and other products of Eastern Washington, and the surplus grain production of the latter could be transported to the western terminus of the road, and thence shipped to any part of the world.

CLIMATE.

The average temperature in Eastern Washington is as follows:

Spring, 52°; summer, 73°; autumn, 53°; winter, 34°. The average annual rain-fall is about twenty inches.

TERRITORIAL UNIVERSITY.

This institution is located at Seattle. It was erected from the proceeds of the sale of university lands donated by the general government to the Territory. It is in a very prosperous condition. It is mainly supported by appropriations from the Territorial treasury, and managed by a board of regents.

INSANE ASYLUM.

An asylum for the insane and idiotic is located at Steilacoom. It is maintained at the expense of the Territory. The present number of inmates is seventy-six. Visitors from abroad speak in the highest terms of the management of the institution. It is under the control of a board of three trustees, appointed by the Governor.

PENITENTIARY.

The Territory has no penitentiary building. Criminals convicted of felonies have heretofore been confined in the county jails of the Territory. The last legislative assembly provided for the keeping of all prisoners by the sheriff of Thurston County, by contract. Suitable buildings have been erected by the contractor at Seatco, where all Territorial prisoners are now confined. The wisdom of this system has been questioned, but it is too early to determine whether the results will be favorable or not. The United States has a fine penitentiary on McNeil's Island. It is used exclusively for the confinement of prisoners guilty of offenses against the laws of the United States.

LEGISLATIVE ASSEMBLY.

The legislative assembly meets biennially, and is composed of a council consisting of nine members, and a house of representatives consisting of thirty members. The sessions begin on the first Monday of October. Elections for members of the legislative assembly, Delegate to Congress, and other officers occur on the first Tuesday after the first Monday of November, biennially.

SUFFRAGE.

All citizens of the United States, all persons who have declared their intention to become citizens six months preceding any election, and all half-breed Indians who pay a property tax, are legal voters. At all elections for school officers, women who pay a property tax are legal voters, and are eligible to any office under the school system of the Territory.

POPULATION.

Chehalis County	720
Clarke County	4,288
Clallam County	470
Columbia County	5,820
Cowlitz County*	1,893
Island County*	616
Jefferson County	1,677
Kitsap County	1,548
King County	5,443
Klikitat County	1,999
Lewis County	1,806
Mason County	520
Pacific County	1,411

* Estimated from the census of 1877.

Pierce County	2,801
San Juan County	700
Skamania County*	274
Snohomish County	1,042
Stevens County*	1,360
Thurston County	2,971
Wahkiakum County	698
Walla Walla County	5,701
Whatcom County	2,155
Whitman County	3,709
Yakima County	1,711

ASSESSABLE PROPERTY.

The aggregate value of real and personal property in the Territory the past year, according to the assessment returns, is \$18,930,964.96. The value of property in each county is as follows:

Counties.	Personal property.	Real property.	Total.
Chehalis	\$63,319 00	\$230,599 00	\$293,918 00
Clallam	76,893 00	55,469 00	132,362 00
Clarke	340,281 00	528,892 00	869,173 00
Columbia	1,014,782 00	506,652 00	1,521,434 00
Cowlitz	185,080 00	565,120 00	750,200 00
Island	98,461 00	263,109 00	391,570 00
Jefferson	192,729 00	319,296 00	512,025 00
King	702,517 00	1,540,287 00	2,242,804 00
Kitsap	535,593 00	454,187 46	989,780 46
Klikitat	434,557 00	135,756 00	570,313 00
Lewis	190,730 00	478,867 00	668,897 00
Mason	57,058 00	307,080 00	364,138 00
Pacific	248,459 00	113,921 00	362,380 00
Pierce	817,530 00	919,267 00	1,736,797 00
San Juan	133,585 00	20,983 00	154,268 00
Skamania			117,519 00
Snohomish	122,637 00	259,582 00	382,219 00
Stevens	330,301 00	11,351 00	341,652 00
Thurston	704,762 00	948,086 00	1,652,848 00
Wahkiakum	102,092 00	32,336 50	144,428 50
Whatcom	226,167 00	386,035 00	612,202 00
Whitman	749,412 00	69,730 00	819,142 00
Walla Walla	1,504,400 00	1,206,610 00	2,711,010 00
Yakima	470,032 00	119,553 00	589,585 00
Total			18,930,964 96

INDIAN AFFAIRS.

Within the past two years public opinion in this Territory has radically changed on the Indian question. There is now a very strong feeling against the reservation system. This, to a great extent, has been created by the Indian outbreak in Idaho last year and in Oregon during the present year. There is also a feeling of insecurity in the minds of settlers, especially in Eastern Washington. They are surrounded by disaffected and discontented Indians, who may at any moment and with little warning commence hostilities. Many of these Indians were in full sympathy with the hostiles in Oregon during the recent outbreak in that State, and some of them actually joined the Bannocks. The opinion very generally prevails that, had the hostiles been able to cross to the north side of the Columbia River, they would have been joined by at least five hundred Indians in Eastern Washington. The presence of gunboats on the Columbia River probably prevented the hostiles from crossing.

At a recent conference between General Howard and a part of these Indians, they were promised a new reservation in this Territory, on both

* Estimated from census of 1877.

sides of the Columbia River. The citizens of this Territory are almost unanimously opposed to this. They regard the reservation policy not only a failure but a constant menace to them. While the Indians remain upon the reservations their tribal relations are kept up; they talk over their grievances, real or imaginary; they send emissaries to other reservations to excite feelings of hostility to the whites, and the result for several years has been an annual Indian war, in which innocent men, women, and children have been massacred, and the government put to millions of dollars of expense.

The remedy that is desired is, to abolish all Indian reservations, break up tribal relations, hold all Indians responsible under the laws for their acts, permit them to avail themselves of homestead and pre-emption rights, and, in short, treat them as citizens of the United States, which this policy would clearly make them under the first section of the fourteenth amendment to the Constitution of the United States. This policy was unanimously recommended by both the Republican and Democratic Territorial conventions which assembled in this Territory the present year. It is possible that this policy might not be feasible in other Territories. Reference is only made to this Territory, where it might be tried as an experiment at least. In the event that it is not deemed advisable to pursue this policy, then the transfer of all the Indians in Eastern Washington to the Colville Agency and those of Western Washington to the Neeah Bay Agency would be far more satisfactory to our people than the present system, provided that an adequate military force were stationed at each reservation to keep the Indians under subjection. These reservations could be easily enlarged so as to afford ample facilities for hunting, fishing, grazing, and agricultural pursuits; they are isolated, one being in the northeastern and the other in the extreme northwestern part of the Territory, and from their peculiar geographical position years must elapse before they will be encroached upon by settlers.

The interest of the Indians in the other reservations could be appraised by the government; the amount thus found due could be invested in United States 4 per cent. bonds, the interest from which could be paid to the Indians on the two reservations, for the support of schools or other beneficial objects. This policy would open to settlement more than one million acres of fine grazing and agricultural land now included in reservations. These reservations are to-day entirely surrounded by settlers, many of whom are encroaching with their stock upon the grazing lands on the reservations, thus engendering quarrels and bitter feelings between the settlers and the Indians.

The opinion very generally prevails that there will be an Indian war in Eastern Washington during the coming summer if matters are allowed to remain as they now are. The following article published in the Daily Oregonian of yesterday is indicative of the feeling of settlers near the Simcoe Reservation:

[Extract from The Daily Oregonian of October 13, 1878.]

INDIANS INSOLENT.

An attempted outrage—Indians in the Kittitas country preparing for war.

A gentleman from the Kittitas country reports that serious trouble is anticipated with the Indians, who are daily becoming more insolent and demonstrative. Recently a buck belonging to Moses's gang attempted an outrage on a white woman, but her screams brought several men, who were at work within hearing distance, to the rescue, and the Indian fled. Just previous to his (our informant's) departure the Indian was to covered in the same vicinity and arrested by a band of citizens. He again proved disbe a desperate villain, and at first resolved upon "standing off" the entire party.

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The settlers, concluding that here was their opportunity of meting out to the wretch the punishment which he so justly deserved, resolved upon sending him off to the happy hunting-grounds on short notice. So they made a grand charge on him with the butts of their rifles, and one settler dealt so heavy a blow as to break off the stock of his gun. However, the Indian dodged about and finally got away under cover of the darkness, which was now coming on, without sustaining any other injuries—it has since been ascertained from his comrades on the reservation—than a broken jaw and several severe bruises about the head. The Indians are all greatly incensed over this procedure and declare they will have revenge. The Indians are preparing, it is generally believed, for an attack upon the white settlers just as soon as opportunity shall present itself. The ugly breach between them and the settlers is being widened every day, our informant states, and both parties are arming themselves for an outbreak. Numerous complaints are made against Seattle and other merchants on the sound, whom the settlers claim are supplying the Indians with all the arms and ammunition they want. Recently, our informant states, an Indian returned, via the Snoqualmie Pass, from this section, with three kegs of powder on one pack-animal. The restless feeling engendered thus among the settlers by these well-grounded apprehensions of Indian troubles, coupled with the general excitement over the outrageous project of establishing an “Indian Botany Bay” in the very heart of their country for the accommodation of the savage hordes of the Columbia, has well-nigh driven them to desperation. They are, for the most part, beginning to feel just as if they would sooner fight than not, and are making no effort to conciliate the red man.

It is deemed absolutely necessary for the preservation of peace that a military force should be stationed in the Yakima country at the earliest practicable moment. General Howard, to some extent, concurs in this view, but will not order a force there until next spring, when it may be too late.

The attention of the government is earnestly directed to this whole subject.

I have the honor to be, very respectfully, your obedient servant,
E. P. FERRY,

Governor of the Territory of Washington.

Hon. CARL SCHURZ,

Secretary of Interior, Washington, D. C.

REPORT
OF
THE GOVERNOR OF WYOMING TERRITORY.

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REPORT.

WYOMING TERRITORY,
EXECUTIVE DEPARTMENT,
Cheyenne, October 26, 1878.

SIR: In compliance with your request of August 9, I submit herewith a concise statement of the resources, progress, and present condition of Wyoming, with some suggestions concerning what appear to be the leading wants of the Territory.

It is proper to remark at the outset that considerable portions of the Territory have been as yet only partially explored, and that comparatively little has been published concerning such portions as are occupied or have been examined. For these reasons I should have been unable to meet even quite moderate demands for information had I not early in the season entered the field as an observer of quite extensive regions but little known, besides visiting those already occupied and undergoing improvement.

I may be allowed to say, therefore, by way of indicating the original source of much of the information contained in this report, that during the past season I have not only visited the many towns and settlements on the railroad and other thoroughfares, the several districts devoted to grazing purposes, the lumber regions, the mining districts, and numerous locations of reported mineral deposits, but that I have likewise made tours of observation in the extreme northern portions, so lately occupied by the Sioux and other hostile Indians—in a word, that I have made such journeys over the plains of Wyoming, in the valleys of its principal rivers, and in the mountain ranges, as have given me a personal knowledge of its characteristic features, as well as a general idea of its industrial capabilities.

In the prosecution of these labors I have been greatly aided by various corporate bodies, by officers of the Army, and by numerous citizens. My acknowledgments are especially due to the Union Pacific Railway Company, the Sweetwater Stage Company, and the Cheyenne and Black Hills Stage Company, for transportation facilities; to General George Crook, commanding this military department; Capt. J. Hayes, commanding at Camp Brown; Capt. E. M. Coates, in command of Fort Fetterman; Paymaster Henry G. Thomas; Maj. C. J. von Herrmann, commanding at Fort McKinney, and General Wesley Merritt, commanding the Fifth Cavalry in the field (then Northern Wyoming), for many extraordinary favors, without which some of my most interesting and useful expeditions could not have been made. Acknowledgments are also due to Col. S. W. Donney, Dr. J. H. Hayford, and General Worth, all of Laramie City; to Dr. George B. Graff, of Omaha, and to Capt. H. G. Nickerson, of Miners' Delight, for generous courtesies in aid of my travels in the Wind River and Laramie Valleys, and in the mining districts of Carbon and Sweetwater Counties.

PART I.—RESOURCES.

GEOGRAPHICAL FEATURES.

The Territory of Wyoming was formed by act of Congress approved July 25, 1868, the southwestern portion of Dakota being united to lesser portions of Utah and Colorado for that purpose. It embraces all that portion of the country lying between the forty-first and forty-fifth degrees of latitude, and between the one hundred and fourth and one hundred and eleventh meridians west from Greenwich. It has an area, therefore, of nearly 100,000 square miles—as great as those of New York, Pennsylvania, and New Jersey combined, or more than one and one-half times as great as that of all New England. While the eastern portion belongs to that vast division of the West known as the Plains, being a continuation of the plains of Nebraska, much the larger proportion, indeed nine-tenths of the whole area, lies within the Rocky Mountain region. This, however, conveys a very incorrect idea of the geographical features of the Territory. For strictly speaking the whole Territory is a region of vast plains relieved by numerous broken and detached ranges and spurs of mountains.

Commencing at the southeast corner—the part first touched by the Pacific Railway—we first encounter the Laramie Range, which extends in a northwesterly course nearly 200 miles. It is this range of mountains that is crossed by the Union Pacific Railroad at an elevation of 8,242 feet, and which has its culmination in Laramie Peak, near its northern extremity. Its width, with straggling flanks and spurs, varies from 15 miles to 40.

Proceeding westward, along the southern boundary, after crossing the southern portion of Laramie Plains, we next come to the Medicine Bow Mountains, which project into Wyoming about 50 miles, and have a lateral extent about half as great. Crossing the valley of the North Platte, which, with its little tributaries, occupies a breadth of 10 or 15 miles, we come now to the main chain of the Rocky Mountains, so called—a chain consisting of an almost continuous, but, nevertheless, broken, series of ranges extending thence through Wyoming in a northwesterly direction into Montana and the British possessions. Straggling portions of these mountains are interrupted by streams of water, some of which are tributary to the Platte and flow eastward, finding their final outlet in the Gulf of Mexico, while others are tributaries of Green River, and flow westward and southward into the Colorado, and finally into the Pacific Ocean. Beyond the broad valley of Green River, which has a southeasterly course through the southwestern portion of the Territory, and crosses the Colorado line exactly where that State corners on Wyoming and Utah, five degrees of longitude west from the eastern boundary of Wyoming, we touch the northern edge of the Uinta Mountains and the Bear River Mountains, which also lie mainly in Utah, but extend northwesterly into Idaho.

Returning now to the western base of the Laramie Range, and tracing a course westward and north of the forty-second parallel, after crossing the Laramie Plains, nearly 100 miles in breadth, an east and west range of mountains is found, which, constituting the southern wall of the Sweetwater Valley, deserves to be called the Sweetwater Mountains, but which, in fact, bears several names, to wit, Sweetwater, Seminole, and Lewis. They are not more than 3 to 15 miles in breadth from north to south, including the elevated plateaus between their scattered spurs;

but in length they stretch across three degrees of longitude. Beyond their western extremity is an open and somewhat broken country, 60 to 70 miles across, being the valley of Green River. West of this, and bounding it, are the Wasatch Mountains, part of an extensive north and south range, belonging mainly to Idaho, but lapping over upon the western border of Wyoming perhaps 40 miles, for a distance north and south of over 100 miles.

Returning again to the eastern boundary, and sweeping across the remaining portion of the Territory, even to the northern boundary, we find, first, the Black Hills, about one-third of which lie on the Wyoming side of the Dakota line, and together with the Little Missouri and the Wolf Mountains, both of which are north and south ranges of high hills, occupy much of the northeastern corner of the Territory. Passing westward over the beautiful valleys, watered by the Powder and its tributaries, occupying a breadth of 50 to 100 miles, we come to that magnificent range, the Big Horn Mountains, a range 30 to 50 miles in breadth, and having a length of nearly 150 miles in Wyoming. Beyond flows the Big Horn River, having a course nearly due north in general terms, and, with its tributaries from the west, occupying a north and south basin 50 to 100 miles in width. Beyond and southwest of this belt are found the Owl Creek, Rattlesnake, and Wind River Mountains; the last named being the most extensive, and having a direction southeast and northwest, corresponding to that of the Rocky Mountains in general, of whose main chain it forms a part, and extending from near the western end of the Sweetwater Range a distance of some 200 miles into the Yellowstone National Park. West of this lie the upper basins of the Green and Snake Rivers; the two being separated by a short east-and-west spur, known as the Wyoming Mountains, connecting the Wind River Range with the Wasatch, already referred to as constituting for about 100 miles the western wall of the Territory.

It will appear from this general description of the position, course, and extent of mountain ranges, that they are widely distributed over the Territory, leaving large areas of valley and plain. As the plains themselves have an average elevation of about 6,000 feet above sea-level, it may be inferred that many of the higher peaks have a great elevation. But few accurate measurements have been made, but it is known that Laramie Peak in the Laramie Range, Snow Range in the Medicine Bow Mountains, Emmons' Peak in the Uintas, Fremont's Peak in the Wind River Range, and Cloud Peak in the Big Horn chain, have an altitude of 12,000 to 14,000 feet.

The Territory is thus, in general terms, a vast expanse of undulating plains, rising abruptly and irregularly at many places into mountain ranges, with elevated spines and lofty peaks; the intervening lower levels broadly grooved or deeply furrowed in every possible direction by a dozen or more important rivers with their numberless branches.

GENERAL GEOLOGICAL FEATURES.

Speaking in the most general terms, the crests of the mountain ranges, and indeed the masses of them, are composed chiefly of feldspathic granite, syenite, and gneiss, followed on their downward slopes by the Silurian, Devonian, Carboniferous, Triassic, Jurassic, and Cretaceous rocks; some appearing in one locality, others in another, according to extent of upheaval or the amount of erosive action. The elevated plains are to a large extent Cretaceous, overlaid by sandstones, assumed to be Tertiary, by gravel and drift. Viewed in detail there are, of course,

various exposures resulting from as many and various geological causes. Thus, over a broad stretch of country on the east side of the Laramie Range we find the surface overlaid with marls, sands or sandstones, and clays of what is known as the White River group. Sometimes these rest on older rocks properly intervening between them and the granites, sometimes directly on the granites themselves. Crossing over this range we have all along exposures of the Carboniferous and of a formation between them and the granites, and resting upon the latter a series of fine and coarse sandstones. There is also a great exposure of red sandstones all along the west margin of the range—a rock, either Triassic or Jurassic—while at several points there are outcroppings of Jurassic limestones; and again, as along the Laramie and Medicine Bow Rivers, of Cretaceous rocks.

In the central and southern portion of the Territory there are extraordinary evidences of upheaval. Indeed, as Professor Hayden has observed, there is in the neighborhood of Rawlins, on the Union Pacific Railroad, an exposure of all the formations, from the granites to the Cretaceous. In some places there are siliceous rocks, with Carboniferous limestone superimposed; in others, exposures of red syenite, with a very decided dip and with numbers of the Lower Silurian group lying in nearly horizontal positions upon it. But throughout the Tertiary rocks of comparatively modern date, the Cretaceous, Triassic, Jurassic, and Tertiary prevail, with but exceptional exposures of the rocks of the primary series.

The geology of Northwestern Wyoming is in general quite similar, except that there appears to be less frequent exposure of the Cretaceous rocks.

The plateaus east and west of the Wind River Range are chiefly Carboniferous, Triassic and Jurassic. The elevated plains, though mostly Cretaceous, are generally overlaid with Tertiary sands, gravel, and drift. So likewise in the basin of the Sweetwater and of the Platte below their confluences; while the granitic rocks (largely feldspathic), with an occasional show of trap and basalt, form the crests of the higher ridges and mountains which mark the physical geography of that region; the more recent formations occupy the plains and valleys. The sandstones more especially present themselves to the eye, but in many places the limestones also come to the surface, not unfrequently of a quality very suitable for economic uses.

Northeastern Wyoming is not very materially different in its geological features from the region last named. There are several ranges of mountains embraced, as before observed, but the rock formations are not peculiar. Erosive action has done its work there as elsewhere, so effectually that what were once ranges of mountains between the Tongue and Powder Rivers have been worn down to what are now only high hills, many of them grassed over to their summits. South of the so-called Wolf Mountains, and throughout that whole region of elevated plains north of Fort Laramie and between the Black Hills on the east and the Big Horn Mountains on the west, eroded sand hills and lofty buttes present conclusive evidence of the great changes wrought since the subsidence of the waters which once occupied this region of plains and washed the bases of the mountains above named.

SOILS.

From the foregoing account it will appear that the popular notion of the sterility of that part of the Rocky Mountain region lying within the

boundaries of Wyoming is far from correct—that the rock formations underlying its plains and lapping upon its mountains are of the very character to produce fertile soils. Loam in the valleys, sandy loam on the plateaus and mountain slopes, these in general are the soils of the Territory.

Observation and experience confirm theory by showing that except in limited localities where the surface has been covered to a considerable depth by drifts of quite pure sand, or where there is a superabundance of alkali, the soil either produces or is capable of producing not only excellent growths of the native grasses but thrifty growths of the tame grasses, grains, and vegetables. Even the alkali soils, so called, are rich in the elements of fertility and are readily improvable by means of irrigation—by washing, so to speak—and in course of time become very productive. The apparent barrenness which marks large areas in certain districts now producing little but sage-brush (*Artemisia tridentata*) and greasewood (*Sarcobatus vermiculatus*) is very deceptive, therefore. Indeed, where these native growths are vigorous and close their mere destruction by fire, or otherwise, is sufficient to insure a firm growth of grass in one or two years.

THE RIVERS OF WYOMING.

Hardly any other Territory is so well watered. Besides being a portion of the divide of the continent and hence a grand water-shed, its mountains are so scattered, as already remarked, that there are many sources of streams in all sections and of course drainage in all directions. Thus the central, eastern, and southeastern portions are remarkably well watered by the North Platte and its numerous affluents, waters which at length empty into the Missouri in Southeastern Nebraska; Northeastern Wyoming, by the forks of the Cheyenne River, which empties into the Missouri in Dakota, and by the Powder and its many branches flowing northward into the Yellowstone in Montana; the middle and northwestern portions, by the Tongue and Big Horn, with their several tributaries, which also empty into the Yellowstone; the western and southwestern portions, by the Snake, whose waters flow northwestward through Idaho into the Columbia River, the Bear, which empties into the Great Salt Lake of Utah, and the Green, whose final course is southwestward into the Gulf of California.

The most important of the rivers are the North Platte, the Powder, the Big Horn, and the Green.

The North Platte has its source in the North Park of Wyoming and Colorado. It flows northward nearly 150 miles to where it receives another considerable stream, the Sweetwater, whose origin is in the Wind River Mountains, and whence, by a grand curve, it sweeps northward around the head of the Laramie Range past Fort Fetterman, and thence in a southeasterly course to Fort Laramie, where it is increased by the quite large and beautiful Laramie (also from the mountains of Colorado) and finally passes out into Nebraska. Its entire length in Wyoming cannot be less than 400 miles, and besides the large tributaries above named it receives scores of beautiful little streams from either side, the whole system watering an area but little less than one-fourth of the whole Territory. The Platte and all its branches are remarkably clear and sweet waters.

The Green, although a very considerable river, with a deep and strong current, has fewer important branches, and waters an area not more than half as large. Still, with the help of Bear River and the Snake, it drains and supplies the southwestern one-sixth of the Territory. The streams

here mentioned are of good water, but one or two of the small streams which flow into the Green are strongly alkaline, Bitter Creek (through whose valley the railway passes for a considerable distance) notably so.

The Big Horn is a splendid river. It is formed at its head by the Wind, Little Wind, and Popo Agie, and many lesser streams which flow out of the Wind River Mountains, and all of which are remarkably sweet water. Farther down to the northward it receives on the east side from the Big Horn Mountains, Badwater, Painted Rock Creek, Shell Creek and the Little Horn; on the western side, and from the Shoshone Mountains, and the Yellowstone National Park, the Owl Creek, Gray Bull, and Stinkingwater. The entire area thus watered is perhaps one-eighth to one-sixth of the whole.

The Powder River has its origin in the southern extremity of the Big Horn Mountains and in the highlands which divide its headwaters from the little streams emptying into the North Platte above Fort Fetterman, receiving as affluents from the west, Willow Creek, Dry Fork, Crazy Woman, and Lodge Pole. Being closely flanked by mountains on the east, it receives no streams from that side.

CLIMATE.

The fact that nowhere else on the globe is there a region so high as this occupied by any considerable community of men has led to a prejudgment of it by those who knowing its altitude do not appreciate the other important elements which help to determine its climatic character.

Recalling the physical peculiarities of the Territory—the northwesterly trend of its broken and scattered mountains, with grand gateways for the admission of Pacific currents, and the low altitude of the mountain ranges beyond the northern boundary of the Territory—we should be prepared to deduce a climate theoretically quite different from one based on altitude and latitude alone. That latitude itself is not a sufficient criterion, any one may readily satisfy himself by comparing the climates of Western Europe with those of the Atlantic side of North America on the same parallels: cold New England, for example, with Spain and Italy; rigorous Newfoundland with sunny France; or frozen Labrador with warm and comfortable Old England. The explanation is easy when we take into account the configuration of the two continents, with the contrary influence of the warm northeasterly currents of wind and water that temper the climate of the European continent, and the chilling waters from Spitzbergen that wash the eastern shore of America. On the western coast of this continent the existing conditions are exactly reversed. It is warmed by northeasterly Pacific currents, which diffuse a warmth along the slope on that side that is felt even throughout the high regions of the Rocky Mountains, and which, curving around the head of those mountains and coming down along the eastern side of the Big Horn Mountains, exert a special influence throughout Northeastern and Eastern Wyoming.

From actual observations, it appears that the isotherm passing through places having a mean annual temperature of 50° , touches the eastern coast of Asia at the forty-second parallel, the western coast of America at the fiftieth, points in Southern Pennsylvania on or very near the fortieth, and then bears away in a northeasterly course, touching London at the fifty-first parallel.

So far as Wyoming is concerned, observations have been taken at but a few points; enough, however, to show that the climate of the plains, both east of the mountains and within them, compares favorably with that of the Middle States.

At this writing, I have access to the records of observations taken at Fort Laramie and Cheyenne only, but am able to state, as the result of comparisons heretofore made, and on the basis of observations by private citizens at various points west of the Laramie Range, that the same isotherms which touch those two places reappear there, so that the tables here presented, covering periods amounting to seventeen years, may be considered as representative of other points as of them.

- Consolidated table of mean temperatures and measurements of rain for months, seasons, and years, and of extremes of temperature, at Fort Laramie, Wyo., for a period of several years, dating back from January 1, 1855.

Months and seasons.	Thermometer.				Rain.
	Mean.	Maximum.	Minimum.	Range.	Amount in inches.
January	31.03				.27
February	32.60				.71
March	36.81				1.37
April	47.60				1.93
May	56.11				5.39
June	67.34				2.95
July	74.70				1.83
August	73.78				.92
September	64.21				1.33
October	50.91				1.26
November	35.83				1.37
December	27.98				.65
Spring	46.84				8.69
Summer	71.94				5.70
Autumn	50.32				3.96
Winter	30.54				1.63
Year	49.91				19.98
Period of time for which table is prepared		104	-29	133	

Table of meteorological observations taken at Fort Laramie, on the Laramie and Platte Rivers, in Wyoming Territory, for a period of five years, extending from January 1, 1855, to December 31, 1859, inclusive.

[Latitude, 42.12; longitude, 104.31; altitude, 4,519.]

Months and seasons.	Thermometer.				Weather.		Rain and snow.		Amount in inches.
	Mean.	Maximum.	Minimum.	Range.	Fair.	Cloudy.	Rain.	Snow.	
1855.					Days.	Days.	Days.	Days.	
January	35.85	64	2	62	(*)	(*)	0	1	.04
February	20.01	63	-6	69	(*)	(*)	2	7	1.08
March	36.41	68	0	68	(*)	(*)	2	6	1.41
April	52.94	80	26	54	(*)	(*)	2	0	.65
May	59.82	83	35	48	(*)	(*)	8	0	2.79
June	69.44	94	48	46	(*)	(*)	5	0	3.25
July	72.40	92	54	38	27	4	10	0	1.45
August	72.93	89	54	35	20	11	10	0	2.93
September	69.00	88	51	37	18	12	9	0	3.39
October	55.04	82	33	49	21	10	2	1	.62
November	40.34	64	14	50	18	12	1	4	.18
December	21.67	55	-24	79	16	15	1	6	1.20
Spring	49.72	83	48	36			12	6	4.85
Summer	71.61	94	48	46			25	0	7.63
Autumn	54.79	88	33	55	57	34	21	5	4.19
Winter	28.84	64	-24	88			3	14	2.32
Year	51.24	92	-24	116			61	25	18.99

* No record for first six months of this year.

Table of meteorological observations taken at Fort Laramie, &c.—Continued.

Months and seasons.	Thermometer.				Weather.		Rain and snow.		Amount in inches.
	Mean.	Maximum.	Minimum.	Range.	Fair.	Cloudy.	Rain.	Snow.	
1856.									
January	19.08	42	- 7	49	22	9	0	4	.55
February	30.29	60	- 5	65	17	12	0	5	.45
March	39.06	70	1	69	16	15	6	2	1.75
April	53.06	78	31	47	15	15	2	3	.34
May	60.89	86	35	51	16	15	7	4	3.51
June	74.94	102	57	45	23	7	8	0	.82
July	76.56	104	56	48	20	11	10	0	4.15
August	71.98	98	54	44	19	12	4	0	2.52
September	59.29	94	31	63	21	9	2	0	.23
October	50.75	86	26	60	18	13	0	3	.29
November	31.65	60	- 3	63	21	9	1	3	.21
December	22.71	55	- 9	64	14	17	0	3	.17
Spring	51.00	86	1	85	47	45	15	9	4.60
Summer	74.49	104	54	50	62	30	22	0	7.52
Autumn	47.23	94	- 3	97	60	32	3	6	.73
Winter	24.03	60	- 9	69	53	38	0	12	1.17
Year	49.19	104	- 9	113	222	144	40	27	15.02
1857.									
January	24.86	56	-14	70	11	20	1	5	.33
February	32.93	66	-11	77	15	13	0	4	.53
March	40.93	68	7	61	20	11	0	0	0
April	40.81	71	5	66	14	16	0	4	.07
May	53.72	83	33	50	16	15	0	0	1.45
June	65.55	90	46	44	25	5	6	0	2.12
July	75.63	98	58	40	27	4	2	0	.04
August	73.47	97	56	41	26	5	3	0	1.87
September	64.74	87	45	42	26	4	4	0	.10
October	55.36	74	31	43	25	6	2	1	1.53
November	33.63	63	1	62	27	3	0	2	.05
December	30.15	48	0	48	26	5	0	4	.06
Spring	51.11	83	5	78	50	42	0	4	1.52
Summer	71.55	98	46	52	78	14	11	0	2.03
Autumn	51.24	87	1	86	78	13	6	3	1.68
Winter	29.31	66	-14	80	52	38	1	13	.92
Year	50.80	98	-14	112	257	108	18	20	6.15
1858.									
January	32.59	52	5	47	29	2	0	0	0
February	27.87	63	-15	78	23	5	0	4	.02
March	41.45	74	- 3	77	28	3	0	1	.02
April	49.46	89	28	61	21	9	1	2	.09
May	50.92	82	23	59	23	8	3	1	1.12
June	70.12	89	47	42	29	1	2	0	.80
July	72.93	91	59	32	26	5	8	0	1.14
August	70.67	91	51	40	22	9	7	0	1.81
September	60.38	88	33	55	24	6	2	0	.70
October	45.64	87	25	62	20	11	3	1	1.43
November	33.82	57	3	54	17	13	2	6	.32
December	26.02	57	-29	86	18	13	0	3	.45
Spring	47.27	89	- 3	92	72	20	4	4	1.23
Summer	71.24	91	32	59	77	15	17	0	3.75
Autumn	49.95	88	54	34	61	30	7	7	2.45
Winter	28.83	63	-29	92	70	20	0	7	.47
Year	49.32	91	-29	120	280	85	28	18	7.90
1859.									
January	29.60	62	1	61	22	9	0	1	.01
February	33.16	56	-14	70	20	8	0	0	0
March	37.07	66	17	49	19	12	0	0	0
April	42.51	70	14	56	13	17	4	6	.18
May	56.03	85	31	54	19	12	6	2	2.11
June	72.89	92	49	43	22	8	1	0	.03
July	79.94	100	59	41	19	12	6	0	1.33
August	73.04	93	58	35	18	13	4	0	.57

Table of meteorological observations taken at Fort Laramie, &c.—Continued.

Months and seasons.	Thermometer.				Weather.		Rain and snow.		Amount in inches.
	Mean.	Maximum.	Minimum.	Range.	Fair.	Cloudy.	Rain.	Snow.	
1859—Continued.					Days.	Days.	Days.	Days.	
September.....	56.74	91	38	53	15	15	5	0	.49
October.....	54.41	87	23	64	28	3	0	2	.22
November.....	34.46	79	— 7	86	15	15	1	5	1.12
December.....	21.98	51	—22	73	14	17	0	8	.20
Spring.....	45.20	85	14	71	51	41	10	8	2.29
Summer.....	75.29	100	49	51	59	33	11	0	1.93
Autumn.....	48.54	91	— 7	98	58	33	6	7	1.83
Winter.....	28.23	62	—22	84	56	34	0	9	.21
Year.....	49.31	100	1	89	223	142	27	16	6.26

Statement* showing mean barometer, maximum, minimum, and mean temperature, amount of rain-fall, and prevailing direction of the wind, for each month, at Cheyenne, Wyo., from January 1, 1872, to October 31, 1878, inclusive.

Year.	Month.	Barometer.	Thermometer.			Amount of rain-fall.	Prevailing direction of wind.
			Mean.	Maximum.	Minimum.		
			°	°	°	Inches.	
1872.....	January.....	29.929	26.6	.....	.....	.02	Northwest.
	February.....	29.859	30.9	.....	.....	.27	West.
	March.....	29.917	33.0	.....	.....	.38	Northwest.
	April.....	29.876	38.3	.....	.....	1.61	West.
	May.....	29.990	52.0	.....	.....	1.99	North.
	June.....	30.041	61.5	.....	.....	1.84	West.
	July.....	30.098	64.5	.....	.....	3.90	Do.
	August.....	30.116	65.1	.....	.....	2.05	Do.
	September.....	30.038	55.6	.....	.....	1.03	Northwest.
	October.....	30.048	45.2	.....	.....	.33	Do.
	November.....	29.950	28.2	69	— 7	.03	West.
	December.....	29.914	23.4	56	—14	.03	Do.
1873.....	January.....	29.831	24.6	55	—17	.03	Northwest.
	February.....	29.778	25.0	51	— 8	.02	West.
	March.....	29.912	39.7	65	3	.38	Do.
	April.....	29.910	34.4	72	3	.92	Northwest.
	May.....	29.854	49.2	81	25	2.41	West.
	June.....	29.996	69.5	94	39	1.77	Do.
	July.....	30.089	69.7	94	43	1.10	South.
	August.....	30.112	69.2	90	47	2.07	West.
	September.....	30.051	55.9	83	28	.36	Northeast.
	October.....	30.030	42.5	80	5	.70	West.
	November.....	29.997	40.1	65	— 5	.17	Do.
	December.....	29.893	27.6	53	— 9	.08	Do.
1874.....	January.....	29.843	30.4	57	— 4	.11	Do.
	February.....	29.816	22.9	52	—12	.11	Do.
	March.....	29.809	28.9	56	— 3	.74	Do.
	April.....	29.931	39.0	80	9	.61	Do.
	May.....	29.944	56.6	88	28	.50	Do.
	June.....	29.981	65.2	96	34	.34	South.
	July.....	30.098	71.8	98	47	.87	Do.
	August.....	30.079	68.6	93	45	.44	West.
	September.....	30.062	54.2	85	29	.93	Do.
	October.....	30.082	46.7	80	11	1.86	Northwest.
	November.....	29.881	35.8	63	2	.04	West.
	December.....	29.950	29.1	61	3	.16	Do.
1875.....	January.....	29.795	12.5	46	—38	.42	Do.
	February.....	29.820	25.6	55	—11	.06	Do.
	March.....	29.810	24.3	62	— 9	.23	Northwest.
	April.....	29.945	36.9	66	2	.50	Do.
	May.....	29.913	54.7	80	25	1.20	Do.

* Kindly prepared for this report by Sergeant J. H. Smith, in charge of signal office at Cheyenne.

Statement showing mean barometer, &c.—Continued.

Year.	Month.	Barometer.	Thermometer.			Amount of rain-fall.	Prevailing direction of wind.
			Mean.	Maximum.	Minimum.		
			°	°	°	Inches.	
1875.....	June	30. 004	63. 7	93	35	. 29	West.
	July	30. 108	64. 0	86	46	4. 47	Northwest.
	August	30. 052	63. 2	88	36	2. 12	Do.
	September	30. 113	56. 0	87	28	1. 34	Do.
	October	30. 045	47. 9	75	11	. 60	Do.
	November	29. 857	30. 3	60	-20	. 84	West.
1876.....	December	29. 850	33. 4	57	3	. 03	Northwest.
	January	29. 851	23. 8	54	1	. 02	West.
	February	29. 854	30. 7	58	0	. 06	Do.
	March	29. 781	26. 8	60	3	. 54	Northwest.
	April	29. 894	42. 4	75	4	. 23	West.
	May	29. 904	50. 6	81	27	. 50	Northwest.
	June	30. 010	60. 8	93	28	. 10	West.
	July	30. 035	72. 3	96	44	. 79	South.
	August	30. 027	66. 5	92	34	. 26	West.
	September	30. 052	57. 3	86	27	. 00	Northwest.
	October	29. 944	46. 9	75	23	. 00	Do.
	November	29. 453	33. 2	69	0	. 32	West.
1877.....	December	29. 894	23. 4	53	-14	. 21	Northwest.
	January	29. 898	25. 0	50	-14	. 20	West.
	February	30. 007	31. 6	58	13	. 14	Northwest.
	March	29. 834	35. 9	67	- 2	. 98	West.
	April	29. 858	38. 2	67	9	1. 11	North.
	May	29. 824	50. 8	81	27	2. 24	Southeast.
	June	29. 959	59. 0	87	32	1. 27	South.
	July	30. 039	70. 2	96	43	. 43	Do.
	August	30. 073	67. 9	91	44	. 83	Do.
	September	29. 993	56. 2	83	27	2. 02	West.
	October	29. 973	40. 0	77	3	1. 99	Do.
	November	29. 942	30. 1	55	-12	. 17	Do.
1878.....	December	29. 953	28. 9	64	-10	. 33	Do.
	January	29. 879	25. 3	49	- 9	. 08	Northwest.
	February	29. 780	30. 9	58	6	. 13	Do.
	March	29. 868	38. 7	70	13	1. 16	Do.
	April	29. 773	43. 5	71	19	. 19	Do.
	May	29. 907	47. 9	76	28	4. 46	Do.
	June	30. 025	58. 6	86	35	1. 71	Do.
	July	30. 049	70. 2	92	44	1. 43	South.
	August	30. 094	68. 3	91	45	2. 50	Northwest.
	September	30. 023	52. 4	87	23	. 75	Do.
	October	29. 976	42. 4	73	- 4	. 04	Do.

It appears from the foregoing tables, made up from official records by officers of the Army, that they afford the most gratifying confirmation of the conclusions already deduced from the physical geography of the continent and of the Territory itself.

Thus Cheyenne and Fort Laramie, although so high above the sea-level, have a mean annual temperature corresponding to that of Middle Pennsylvania, Ohio, and Indiana; a spring temperature like that of New York City, Southern Pennsylvania, and Central Ohio; a summer temperature like that of Middle Pennsylvania, Northern Ohio, Southern Michigan, Western Wisconsin, and Central Minnesota; an autumn corresponding to that of Southern New York, Middle Michigan, Southern Wisconsin, and Southern Iowa; and an average winter temperature corresponding to that of Southern Pennsylvania and Central Ohio. An examination of the tables in detail will show, moreover, that the annual and monthly ranges of the thermometer are moderate; they are, in fact, even less than at the lower altitudes in the States above mentioned.

The amount of rain-fall is of course greatly less there than in the States, though occasionally in sufficient amount to produce good crops in favorable locations without irrigation, a point to be considered more at length

in connection with another topic. The tables show a range between five inches and nineteen per annum.

The uniformity of the barometric pressure is very observable, as also the uniformity with which the winds blow from the west and northwest, with south winds not uncommonly in June and July. Observation further shows that, while there is not unfrequently a quite strong breeze blowing from these quarters, there is nothing like the constancy, force, or violence observed in the plains farther east, particularly in Kansas and Nebraska, where the winds have free sweep. Here the ranges of mountains check their force very much, from what quarter soever they may blow.

MINERAL RESOURCES.

Owing to the occupation of the greater portion of Wyoming by hostile Indians until very recently, the mineral resources of the Territory have been but little developed, or even ascertained with much definiteness. Enough has been determined, however, to settle the matter beyond all question that they are vast and varied. Personal observation during the past season has fully satisfied me on this general head. It is also certain that they are widely distributed.

It will not be possible in this brief statement to give a very detailed account of the various mineral deposits already known and to some extent developed, but I shall endeavor in a general way to point out their character, locality, probable extent, and degree of development.

GOLD AND SILVER.

Any one familiar with the gold and silver districts of the Rocky Mountain region would certainly expect to find like deposits of the precious metals in the mountains of Wyoming. This promise made by the rocky ranges and their formations, and strengthened by the frequent outcrop of metal-bearing rocks, and the occurrence of free gold in many streams, has been confirmed by explorations in various quarters, and by actual mining operations at several places; so that now the only questions that remain to be settled are those of extent and richness.

For many years previous to any permanency of settlement in Wyoming numerous trappers, hunters, and adventurers had given accounts—some plausible and some extravagant—of gold and silver in the Black Hills, the Laramie and the Wind River, as well as in the Medicine Bow and Seminole Mountains. Streams were referred to in whose sands gold was discoverable at almost any point, and gulches were described where fortunes could be washed out in a few months. These stories were confirmed to a greater or less extent by parties of restless goers and comers between the Atlantic and Pacific slopes; by bands of Mormons who, during their exodus from the Mississippi Valley, halted at various points in the Territory; by members of the Army of the United States stationed at here and there a military post; and, finally, by men of scientific character exploring singly or in connection with expeditions authorized by the government.

Finally, near the pass between the Sweetwater and Wind River Mountains, through which John C. Fremont made his way to the Pacific coast, mines were actually opened, and the work of mining began in good earnest. Success attended the efforts made, and enterprising men went in there so rapidly that soon the mining camp became South Pass City, with a population of 2,000 to 3,000. But the presence in that

region of large bodies of Sioux and other hostile Indians made of it a battle-ground, where many lives were lost at frequent intervals; and soon the miners, encouraged by reports of equally good prospects and greater security elsewhere, began dropping away, singly and in companies, until ere the end of 1870 the vacant dwellings, saloons, and shops, with the abandoned gulches, shafts, and mills, far outnumbered those still held and used by the more resolute and pertinacious. At present but a few families are there to preserve a semblance of the activity that once marked this settlement.

Almost simultaneously with the commencement of the mining enterprises at South Pass, mines in large number were located some four miles to the northward, at a point called Atlantic City. Here both gulch and quartz mines have been worked with considerable success, and are still in operation, though with some abatement of the energy that marked the first operations. Seven mills are still standing; the most, if not all of them, receiving ore enough to keep them going a part of the time. But the same discouragements which drove out the miners from South Pass City have also led to the abandonment of the Atlantic City field by all except the most plucky. It is the opinion of those who remain, as it is of many others most competent to judge, that some of the mines already opened would prove highly remunerative if worked in a thorough manner—as they never have been—and that there are in that locality rich veins yet undiscovered. Within a few months past one or two confident and energetic capitalists have bought up some of the more promising mines, reopened them, imported valuable machinery of the most approved models, and taken hold of the work of their development in a very resolute and business-like manner. The gulch mining has also materially revived, and the prospect is brightening generally.

From Atlantic City I passed over the ridge to Camp Stambaugh, three miles distant (noting by the way the graves of a number of pioneers and soldiers who fell in conflict with the savages), and thence two miles farther to Miner's Delight, and the seat of active operations in mining. Miner's Delight is located on the two sides of a sloping trough or shallow gulch having its head near the summit of Peabody Hill, an elevation of between 8,000 and 9,000 feet, and commanding a magnificent view of the Wind River Mountains on the west, as well as a sweep of country on the east more than 100 miles in diameter. The scenery along the Beaver—a creek that limits the mountain slope on the northern side, and wends its way toward the Popo Agie—is especially fine. But the delight of the miners who located here was not wholly derived from the extraordinary beauty and magnificence of the surrounding scenery. The gulch was found to be quite rich in gold, and well repaid the labor of working, notwithstanding the rather limited supply of water; besides which the ledge of quartz which crosses it diagonally far up toward the summit of the mountain was soon found to be productive. Three shafts were sunk and three stamp-mills located upon them. Of these but one was in constant operation at the time of my visit. It is believed that the others are well located and would certainly yield fair returns if efficiently worked. They were waiting for repairs or for means to carry on improvements. The mine of Kunckles & Keim is worked at a depth of 200 feet, with a yield of about \$50 per ton of 2,000 pounds of quartz. The drifts at the bottom of the shaft have given the proprietors new encouragement, and they are pushing their enterprise with renewed energy. The gold is of the free-milling sort, and the appearance of the rock in which it occurs is excellent. Other locations have been made on this same vein, and there is reason to believe that the success of the

mine now so vigorously and successfully operated will stimulate to new efforts in this interesting field.

Gulch mining is still carried on here, but, with the inadequate supply of water, no longer yields the large returns it once did. Timber is abundant on the Beaver. At several points farther north, in the Wind River Range, some prospecting has been done, but with only indifferent results.

In the Seminole and Ferris Mountains, some 75 miles a little south of east from the mining region above referred to, much prospecting has been done and several mines have been opened and worked.

In view of the extraordinary advertising of rich mines of gold and silver in those mountains, I recently made a visit to them, leaving the railway at Rawlins, from which they are distant about 40 miles in a direction almost due north. I found a number of prospect openings quite high on the Ferris Mountains, at two places some show of work, and at the foot of the mountain, by the side of the highway, a deserted mill and mill village. It is said that some \$30,000 was put into the mill, and the very good road to the mines, before a sufficient test had been made of the ore. The work now doing on these mountains is little more than prospecting, and with less than the most brilliant promise—a fact which of itself sufficiently condemns the extravagant circulars with offers of stock which have emanated from that quarter.

The appearance of this region is such as to encourage any one familiar with mining locations, and I would be far from expressing the opinion that neither gold nor silver is to be found in paying quantities. But, until a real mine has been found, common honesty should restrain any prospector from proclaiming the unquestionable richness of his possessions. Misrepresentations of the kind alluded to bring not only disappointment and loss to those who are deceived by them, but are calculated to breed a general distrust of all claims subsequently set up. It is this interest in the fair name and future of the Territory, and this conviction that the outside public have been imposed upon in the matter of this particular enterprise, that demand of me this public reprobation of the manner in which it has been conducted.

A visit to the mining camp in the Seminole Mountains, but a few miles distant from that above alluded to, yielded but little more satisfaction. The camp is for the most part a deserted one. There are many openings visible, a number of tunnels made at large expense, and one rather ancient little mill for stamping quartz. An examination of the Ernest Mine satisfied me of the existence of a true fissure vein; and a choice specimen of the rock, taken from the tunnel by the Territorial assayer, who accompanied me, has been found to yield \$106.20 per ton of 2,000 pounds. Should this particular rock, a sample of rotten quartz containing much oxide of iron, occur in large quantities, which it did not appear to, it would of course pay very well. Other prospects in this locality afford quite good indications; and, now that the Indians are no longer to be feared there, I shall expect a revival of interest in it on the return of more prosperous times financially.

Wood, though not very abundant, is sufficient in amount to serve for a considerable time in both of the localities just reported.

The most active gold and silver mining camps in Wyoming are found in Douglass Creek, in the Medicine Bow Mountains along the southern boundary of the Territory, and near the North Fork and Grace Creek tributaries of the Little Laramie, at the foot of what is there called the Snowy Range. Special visits to these localities also enable me to speak from personal observation.

The Douglass Creek district was earlier known as the "Last Chance"

mining region. It was then the location of considerable gulch mining. More recently a few enterprising citizens of Laramie City, and, still more lately, wealthy citizens of Illinois, have undertaken quartz mining with a good prospect of success. The general location is one of exceeding interest. As the miner would say, "it has a promising look." It is but little less than 10,000 feet above sea-level, and is traversed by a considerable number of seams of gold-bearing quartz, some of them cropping out on the very crests of the mountain summits, which, singularly enough, in view of the great altitude, are thickly studded with tall, straight, and beautiful spruces, pines, and firs.

The new camp just building is situated directly on Douglass Creek—a strong and beautiful stream—and not very far, of course, from its source. The substantial and handsome manner of building the village indicates the strong confidence which inspires the enterprise. Many claims have been staked all about, and the work of exploring is still going on—a task not so easy as otherwise, because of the fragmentary rocks and the thick coating of soil, huckleberry-bushes, and timber, which cover the mountains all over.

The principal mines so far opened are the Keystone, the Blue Jay, and the Florence.

The Keystone is a well-defined fissure vein of quartz, about 30 inches to 3 feet in breadth. A shaft 60 feet in depth has been sunk on the vein at one point, and at another it has been struck by a tunnel of 240 feet in length, 175 of which is on the vein. The ore is of low grade, yielding an average of \$15 per ton of ore, but is pretty easily worked. The company have a 10-stamp mill at work day and night, and with cheap mining, convenient delivery of ore, abundance of water, and inexhaustible supplies of timber all about the mill and mine, find no difficulty in netting a handsome profit.

The Blue Jay is located on the same vein as the above, simply over the hill. Much money has been rather unprofitably spent in the construction of two or more tunnels, and the company have yet to realize the high expectations with which they commenced work, though the success of their enterprise appears to be only a question of time and judicious management.

About one-half a mile from these two mines, and on the opposite side of a ridge, is found the Florence Mine. The vein is well defined and the ore of superior quality. The proprietors were just getting a 10-stamp mill upon the ground, and are probably at this moment stamping out the gold.

Coming down the mountain into the valley of the Little Laramie, a visit was subsequently made to the once famous Centennial District. This was opened in the year 1876. It is situated about 30 miles west of Laramie City. The ledges opened are plainly visible on the slope of a foot-hill rising abruptly from the valley of the Laramie, and were found to be very rich. The deposits first discovered proved not to be true veins, however, and were soon practically exhausted. Several new prospects have been recently opened, but the promise is not large.

Near the foot of the Snowy Range, and 13 or 14 miles from the Centennial, was found a recently-opened camp of prospectors, who are strong in the belief that they have found important deposits of silver and gold, more especially the latter. Two or three shafts have been sunk to a depth of 50 feet or more, and samples of argentiferous lead and other supposed ore taken from them were shown. Whether they are valuable or worthless will be determined by the Territorial assayer who has them for examination. With a properly improved wagon-road, or tramway,

this district, supplied as it is with an abundance of water and timber, is well circumstanced, should this ore prove to be productive.

At various other points—on Sheep Mountain, opposite the Centennial; on Jehu Mountain, at the head of Big Laramie River; on Rock Creek, near the Old Overland Stage Road, 30 miles northwest of Laramie City; in the Laramie Range, but a few miles west of Cheyenne; at the head of Stinking Water River, near the eastern boundary of the National Park; in the Little Missouri Mountains, the Wolf, and especially in the Big Horn Mountains, gold and silver have been prospected for, and one or the other, or both, actually found; but as yet no very satisfactory results have been obtained.

The silver ores found on Sheep Mountain and Jehu Mountain have been represented as quite rich, but it does not seem to be fully settled that they occur in deposits of more than quite limited extent.

The Stinking Water excitement of the present season appears to have had origin in either the stupidity or rascality of one or two persons who caused extravagant accounts to be published of the richness of placer mines said to be located at a point on that river, having a longitude of $110^{\circ} 30'$ and a latitude of $44^{\circ} 30'$. Many persons made their way thither from the Black Hills and other mining districts, only to find that they had been grossly deceived, and to make their escape the best way they could from the roving bands of Bannocks who were then in the park.

As it relates to the mountains occupying the northeastern portion of the Territory, there is so much concurrent testimony strengthening the very natural opinion based on the character of the mountains and their rock formations, that we are prepared to expect important discoveries in that quarter. Considerable prospecting has been done there already; but, until within the past year, all attempted explorations have been at great peril, and even now security is hardly complete.

So far as the Black Hills are concerned, the mining developments in that region have been chiefly confined to the Dakota side of the line, which gives to that Territory rather more than half of the district known by that name.

On Sand Creek, a little stream running toward the northwest and emptying into the Bell Fourche, or some tributary of it, in the extreme northeastern corner of Wyoming, and between the Black Hills proper and the Bear Lodge range of mountains, gulch-mining has been opened with very encouraging prospects. I was unable to reach that point during my journey in the Powder River country, but am credibly informed that there are at present 100 miners at work in that locality. The gold is represented as being of remarkably fine quality, and as occurring mostly in coarse nuggets, often of \$5 to \$10 in value.

I have also gained information of successful mining on the Wyoming side of the Black Hills, at the southern extremity, and in a locality known as Nigger Gulch, but do not know with definiteness how much has been accomplished. Prospecting is in progress at various points on the western side of the hills, and favorable accounts are coming on. This is the most that can be said at present.

After considerable personal observation and much testimony on the subject, I am well convinced that great loss has been suffered by our people through the incompetency and dishonesty of men assuming to be assayers, who had no qualifications for such work, or who, having knowledge of the method, for the sake of a little present money or for what they hoped to realize from an interest allowed for services, were ready to make a favorable report. Cases could be cited in which large investments, based on false reports of assays, or even pretended assays that

were never made at all, have been totally lost, a proper assay afterward made showing that the so-called "rich ores" contained not so much as a trace of either gold or silver.

In view of these facts, now so patent in all our mining districts, I esteem the Territory of Wyoming very fortunate in having just secured the services of one of the most competent and distinguished graduates of the School of Mines of Columbia College—the foremost mining school of the United States, and one of the best in the world. Under authority conferred by the last legislature, an office and laboratory have been opened at Rawlins, and Mr. J. G. Murphy, the gentleman above alluded to, has been appointed Territorial assayer, and is now in the discharge of the duties of that office. Being not only an assayer, but also a thorough analytical chemist, metallurgist, and mining engineer, he will be able to render service of great value to our people.

COPPER ORES.

Copper ores, promising very well, have been found in large quantities in the Laramie Range near Cheyenne, near the Colorado line at the head of the Big Laramie, in the southern portions of Sweetwater and Uinta Counties, and at various other points. Native copper and copper ore have also been found near Rawlins; but the former occurs in very inconsiderable quantities, and the latter as an unimportant chemical precipitate in the reddish Triassic rocks of that locality or in the form of mere streaks of the green carbonate.

The copper ores in the Laramie Range are located in township 14 north, range 70 west, and at the head of the middle branch of Crow Creek, 20 to 25 miles west of Cheyenne. They occupy the eastward slope of the range, and the veins, which have a considerable dip or are vertical, with two to three feet in thickness, have a general northeastern and southwestern direction, though not altogether conformable in this respect.

I have seen no analysis, but have before me the repeated results of a number of assays made to determine the per cent. of copper and the presence of gold and silver. It appears that the ores taken from different veins are quite various in composition. Thus, one ore contained but little copper, but showed 70 per cent. of lead, yielding \$86.35 in silver per ton. Another yielded 30 per cent. of copper, with \$10.36 per ton of silver and \$10.33 in gold. Still another, by the United States mint at Denver, showed that the ore was an antimonial sulphate of copper, containing 46 per cent. of the metal, and 15.77 ounces of silver, worth \$20.35 per ton of ore. The Omaha Smelting and Refining Company, whose chemist examined a large lump of the ore, made a report, from which I extract the following:

We have carefully assayed the samples of ore left with us, and find that it contains 1.65 ounces of silver per ton, a trace of gold, and 40 per cent. of copper. A selected piece of the above ore yielded 57.40 per cent. of copper.

A lower grade of copper ore has recently been discovered on Grand Encampment Creek, one of the mountain tributaries of the North Platte, and about 60 miles south, or a little east of south, from Fort Fred Steele. I have not yet seen these deposits, but they are said, on reliable authority, to be quite extensive.

IRON.

Iron is seen in very many localities; but the largest deposit yet discovered is found in the Laramie Range, northwest of Cheyenne about 45 miles,

and 25 miles northeast of Laramie City. It was observed and reported upon nearly twenty years ago by different Army officers, and in 1860 received a visit from Prof. F. V. Hayden, then attached to the exploring expedition led by General W. F. Reynolds, who also revisited it in 1868, and has since spoken of it as being apparently unlimited in extent and of great prospective value. It occupies a ridge of some 15 miles in length at the head of Chugwater Creek, and parallel with the Laramie Range. This ridge, rising full 600 feet above the Chugwater (which cañons it), may be properly called a mountain; and it does go by the name of "The Iron Mountain." The ore is interstratified with the feldspathic granites which compose the body of the ridge, and its beds have the same inclination and cleavage. The mode of occurrence is like that of the Lake Superior deposits, and Dr. Hayden expresses the opinion that the ore "is probably of the age of the Larenteur rocks of Canada." It is a magnetic ore very rich in metallic iron, as the following analysis made at the Columbia School of Mines by Mr. J. P. Carson, connected with the Hayden survey, will show:

	Parts in 100.
Sesquioxide of iron.....	45.03
Protoxide of iron.....	17.96
Silica.....	0.76
Titanic acid.....	23.49
Alumina.....	3.98
Sesquioxide of chromium.....	2.45
Sesquioxide of manganese.....	1.53
Lime.....	1.11
Oxide of zinc.....	0.47
Magnesia.....	1.56
Sulphur.....	1.44
Phosphorus.....	a trace.
	99.78
Metallic iron.....	45.49

It makes a harder iron than the Iron Mountain ore of Missouri, and is extremely white and ductile. It may be assumed that the titanic acid, present in so large a proportion, will increase the difficulty of reducing the ore; but science will doubtless be able to overcome it.

A second important deposit of iron is found in one of the ridges near Rawlins. It occurs in extensive beds several feet in depth, and is easily mined. It is a red oxide, and of so rich a color and possessed of such preservative properties as a paint that it has been very much used for that purpose. Two mills have been erected for crushing and putting up the powder in barrels for shipment. Neither the mines nor the mills were in operation at the time of my visits; nor do I learn that they have been worked during the past season, the reason assigned being that the expense of transportation left but little margin of profit.

As the Rawlins Metallic Paint Company have expended something like \$25,000 in opening the mines, erecting paint-works, and otherwise proposing to do a large business, it is to be hoped that this ground of inaction will not long continue. Mr. Robert E. Strahorn, in an account published by him quotes testimony regarding the value of this paint, from which I extract the following:

Superintendent Stevens, of the Union Pacific car and building department, says: " * * * We use it exclusively for painting box and flat cars, iron and tin roofs, and buildings on the line of this road; have found it a valuable preservative of wood, and the very thing so long needed for repairs of leaky roofs, for while it is cheap as a paint it fills up all nail-holes and leaks, and becomes virtually an iron covering, perfectly impenetrable to water. We are satisfied that it will cover more surface, pound for pound, last longer, and retain its color better than any paint before the public." The master painter of the Chicago, Burlington and Quincy Company's car-works

says: "I have had your paint in test for about six months. I put two coats of it mixed with boiled oil on a piece of sheet-iron and buried it in strong brine about six months ago, and it does not show any signs of rusting through the paint. I have also used it on locomotive work and find that it covers far more surface than any iron paint I have used.

Besides the use made of it upon the buildings of the Union Pacific Railroad Company, one observes that it has been extensively used for private buildings, especially for barns and other out-buildings, throughout the Territory.

This red oxide also makes an excellent flux for the reduction of silver ores. Many thousands of tons have been shipped to Utah for this purpose since the opening of the mine.

GRAPHITE.

Reference has been made during my travels over the Territory to several deposits of graphite, but I have gained definite knowledge of but one, namely, in the Laramie region, about 12 miles west of the Laramie Iron Mountain. It occurs, of course, in a section of country marked by signs of upheaval, and the veins, which vary in thickness from 18 inches to 4½ feet, are various in direction and dip; some being quite horizontal, some having a considerable inclination, and others being altogether vertical. Seven mines have been located on this field, whose area is, perhaps, 2 square miles, and specimens have been subjected to various analyses and practical tests with very satisfactory results. The material, as taken from the mine, yields 80 per cent. of pure graphite. When pulverized and rubbed upon any surface it gives a bright and beautiful polish. The deposits are certainly of much value, and an investment of a few thousand dollars would seem to be alone necessary to the realization of handsome profits from the enterprise.

SULPHUR.

Near the head of Bear River, in extreme Southwestern Wyoming, have been found immense deposits of a superior quality of sulphur. The region is volcanic, extinct craters being still plainly visible in the vicinity of the deposits. As the material is very easily worked and lies but about 20 to 25 miles from the railroad, the future value of these deposits is unquestionable.

SODA—SULPHATES AND BICARBONATES.

Among the most remarkable mineral deposits of the Territory are its vast accumulations of soda in the basins of former lakes or ponds, and hence called "soda lakes." The accounts of these lakes had been so interesting that late in the month of September I set apart some days for a personal examination of them. I had naturally assumed that they were bodies of water strongly impregnated with soda salts; and this was true of one of them. What, then, was my surprise to find that they were *solidified* lakes—bodies of solid soda several feet in thickness, and the product of an endless series of evaporations of water bringing to these basins soda salts in solution.

My first visit was to the deposits of the sulphate of soda (Glauber salts), lying within the Laramie Plains, about 12 miles southwest of Laramie City. Driving over those beautiful plains, on a golden autumnal day, I was hardly prepared for the sudden view of a cluster of beautiful little lakes—lakelets, more properly—completely frozen over and incrustated with a thin covering of snow, its millions of crystals glistening in the

noonday sun. Such was the appearance; and when, with cautious tread, I had walked to the middle of one of the largest (having an area of 56 acres) and chopped out a piece of the ice, my sense of sight would not even then yield to be corrected until that of taste came to its service. Here and there wooden stakes set up in the basin indicated the places where borings had been made to prove the depth of the deposit, varying from 10 to 15 feet in the more central portions. Darker places, looking like "air-holes," were also observed, which, when examined by breaking through a crust, appeared to be open quite down to the bottom, giving some plausibility to the theory that below were springs whence the soda-water welled up at times, overflowing the solid bed, and by successive evaporations added to the depth of the deposit. The crust, mainly though not entirely covering these open places, was often several inches thick, its under surface studded with beautiful large crystals of pure sulphate of soda. One of these crystalline masses, weighing ten or a dozen pounds, lies here on my table, whitened by efflorescence, and now the admiration of visitors. It was from an adjoining smaller "lake" that was taken the immense cube, of some tons, that was shown at the Centennial Exhibition. The character of these deposits and their availability for economical purposes have been very clearly and fully set forth by Col. S. W. Donney, Territorial auditor, a citizen of Laramie, who has probably given more time to these inquiries than any one else in the Territory. I quote from a communication addressed by him to Mr. Robert E. Strahorn, author of the work hereinbefore referred to:

The cube exhibited contained over 200 cubic feet of solid crystalline sulphate of soda, almost chemically pure, and as it exists in its native state. Its constituent elements, as well as I can ascertain, are, by weight, as follows: 19.4 per cent. of soda and 24.8 per cent. of sulphuric acid, constituting 44.2 per cent. of sulphate of soda, the residue being the water of crystallization (55.8 per cent.).

The sulphate fuses in its own water of crystallization at a slightly elevated temperature, and, by maintaining a temperature of $91\frac{1}{2}^{\circ}$ Fah. for a short time, the material would part with its original water and recrystallize in an almost anhydrous state. The material in the cube, which is as it exists in the deposit, having crystallized below 68° Fah., contains the maximum of water. In this form it effloresces in the air and its crystals soon fall to powder. Had crystallization taken place at a higher temperature (but under $91\frac{1}{2}^{\circ}$), a hydrated sulphate would still have been formed, but with less water, and the crystals would have been unalterable in the air. Such being the characteristics of the material, I proceed now to a description of the supply.

The deposit whence the sample mentioned was taken covers an area of more than 100 acres, being a solid bed of crystallized sulphate of soda about 9 feet thick. The deposit is supplied from the bottom by springs whose water holds the salts in solution. The water rising to the surface rapidly evaporates, and the salts with which it is impregnated readily crystallize in the form mentioned. Upon removing any of the material the water rising from the bottom fills the excavation made, and the salts crystallizing replace in a few days the material removed. Hence the deposit is practically inexhaustible, and it now contains about 50,000,000 cubic feet of chemically pure crystallized sulphate of soda ready to be utilized.

Soda is most valuable in the form of carbonate, although its sulphate also has its uses. Neutral carbonate of soda is a salt of vast importance on account of its uses in the arts, and the production of this salt is a desideratum. For a long time it was only obtained from the lixiviation of the ashes of sea-weed, inland plants affording salts of potassa principally, while in marine plants salts of soda preponderate.

Spain formerly produced the greater part of the carbonate used in Europe, called barilla, and sometimes Alicant or Malaga soda. It was afterward largely prepared on the coasts of Scotland and Wales and among the Hebrides. In the Peninsula the source of supply was limited, and among the rocky crags of the Western Isles it was a difficult task to gather the sea-weed, principally the algæ and fuci, by whose incineration, the lixiviation of the residual ashes, and repeated manipulation, 4 per cent. of soda may be obtained. The supply from these sources being so limited, and the cost so excessive, early in the present century chemists, encouraged by the French Government, made many attempts to manufacture the article from other materials. After many unsuccessful attempts and fruitless experiments, a process was discovered by Le Blanc for the conversion of chloride of sodium into carbonate of soda, and it is to this process that we mainly owe our present supply.

The soda consumption of the United States amounts to some 250,000,000 pounds a year, all of which is imported at an outlay of about \$47 in gold per ton, at seaboard, besides the duty, which is, I believe, about 20 per cent. *ad valorem*, making \$56.40 in gold per ton. Here is a staple article which is imported at an outlay of \$7,000,000 annually, whereas we have within our borders the material for its production in greater purity and abundance than it exists elsewhere, and there is no reason why we should not supply the domestic demand and also foreign markets.

Le Blanc's process, to which reference has already been made, consists first in converting the chloride of sodium into sulphate of soda by the introduction of sulphuric acid, and then in substituting carbonic acid for the sulphuric acid, which is done by heating together, on the brick hearth of a reverberatory furnace, to the point of fusion, materials in the following proportions by weight, viz: 1,000 anhydrous sulphate of soda, 1,040 carbonate of lime, and 530 charcoal; the reaction taking place in such manner that two equivalents of sulphide of calcium, combining with one equivalent of lime, form an oxysulphide of calcium, perfectly insoluble in water, the water dissolving out only the carbonate of soda.

As the material of our native deposit is already sulphate of soda, we may dispense with the first and most expensive part of Le Blanc's process—the production of sulphate of soda from chloride of sodium and sulphuric acid. All that we have to do is to convert the sulphate of soda into the carbonate, and here the latter part of that process seems precisely adapted to the purpose and could be conveniently adopted here, charcoal and limestone being cheap and abundant in the immediate vicinity. A Marseilles reverberatory furnace, such as is used in England and France for the purpose, with the necessary appliances, buildings, &c., for works with a capacity of one ton per day, of the anhydrous carbonate, would cost not to exceed \$10,000, and the capacity might be increased for less than 50 per cent. additional for each ton of increased capacity.

Now, by a calculation based upon the atomic weight of the combining elements, it is ascertained that for the production of one ton (2,000 pounds) of anhydrous carbonate of soda there are required—

2,665 pounds of anhydrous sulphate of soda.

2,815 pounds of carbonate of lime.

1,013 pounds of charcoal.

6,493 pounds of material, 30.8 per cent. of the sum of the combining equivalents being carbonate of soda. The above proportions differ but slightly from those of the Le Blanc process, which has undergone a thorough practical test, so that we have a safe basis upon which to estimate the cost of production. About 56 per cent. of the commercial carbonate being the water of crystallization, after making due allowance for waste in manipulation, one ton of the product as above will form two tons in a crystallized state. Hence for the production of one ton of commercial carbonate of soda—

1,332 pounds anhydrous sulphate of soda, costing	\$1 33
1,407 pounds carbonate of lime.....	70
506 pounds charcoal.....	2 50

3,245 pounds material, costing..... 4 53

besides transportation to works, the average cost of which would be about \$1 per ton = \$1.62. Manipulation, it is estimated, would cost \$10 per ton, and packages, say, \$3.50. Summing up we have for—

Material mined.....	\$4 53
Transportation to works.....	1 62
Manipulation.....	10 00
Packages, &c.....	3 50

Amounting to 19 65

per ton of product, worth, as hereinbefore stated, \$56.40 in gold per ton, assuming that the article would be worth as much here as it is at the seaboard. Making no allowance for the premium on gold, which at current quotations would compensate for the interest on the capital to be invested, we would have a net profit on the cost of manufacture of \$36.75 per ton, or 187 per cent.

And here it might be well to state that the deposit is convenient to lines of transportation, being only about 11 miles from this point on the great transcontinental railroad, the intermediate country being a hard and level plain, affording an excellent natural road-bed, with grass and abundance of good water at convenient intervals. And also in passing I might mention that the United States penitentiary, containing about seventy-five convicts, is located here and at the most convenient point for works. By employing convict labor, which might be obtained for 50 cents per day (a rate as low as the lowest of foreign cheap labor), the cost of production would be reduced far below the estimate given.

The deposits of the bicarbonate of soda lie in the valley of the Sweetwater, within view from Independence Rock, about 75 miles north of Rawlins, from which place they were reached by myself and friends on the occasion referred to. One side of the valley at this point is flanked by detached ridges properly belonging to the Sweetwater Mountains, the other by granite ridges belonging to the Rattlesnake Mountains. The Old Emigrant road, via South Pass, to California, opened by John C. Frémont, and still a highway for the occasional traveler and for herds of cattle coming through from Oregon, passes through this valley.

The number of lakes, lakelets, and ponds filled with solid soda, with soda and sand in mixture, or with water strongly alkaline, is said to exceed 100. I counted 49 in regularly passing between the largest three, which more especially claimed my attention. Of these three, the smallest one, and the first encountered in going up the valley, has an area of perhaps 20 acres. The appearance was very much that of the soda lakes west of Laramie City. There had been a heavy rain but a few days before, however, and on this account the surface, though covered with a dry-looking efflorescence, like snow, was yet a little soft. We walked across it without difficulty, however, and with an ax removed large blocks of the soda, one of which now lies before me, a little grayer-white than the sulphate, and now without the perfect crystals which then covered its under surface. The middle one of the three was covered with water to a considerable depth and could not be examined with satisfaction. But the largest and deepest of all, though soft upon the surface, so that a man could break through the thin incrustation into the mixture of wet sand and soda below, was as solid as ice underneath. In fact we walked out upon it some distance, removed the soft covering, and at a depth of 10 inches struck the solid foundation of soda crystals. The area is scarcely less than 300 acres; the deposit being a mile in length, with an average width of nearly half a mile. Dr. Geo. B. Graff, of Omaha, under whose kind escort the place was visited, assured me that, at the several points indicated by stakes, borings had been made to the extent of the auger's length (40 feet) without passing beyond the solid soda, such as we found near the surface. Assuming the correctness of the statements as to number of deposits and depth of the most important ones, it is safe to say that they are unapproached for quantity by any other soda deposits in the known world. When examined chemically, this soda is not a pure bicarbonate, but has a mixture of sulphate and other soda salts. The source of these wonderful deposits ceases to be a mystery when one examines the rocks of the surroundings mountains, which mainly consist of feldspathic granite. Quite a large proportion of Independence Rock, near by, which was more particularly examined, is crystalline white soda feldspar; rock easily decomposed and rich in the salts here deposited. By what means soever the soda reached these basins, whether through undercurrents bearing the salts in solution and rising like springs, or by solution and surface-washing, it is clear that these feldspathic rocks on all sides explain its origin.

PETROLEUM, ASPHALT, ETC.

At the railroad-crossing of Bear River, in Uintah County; along the railroad near Green River Station, and thence southward toward Utah; in the valley of the Popo Agie; in the valley of the Little Wind River, near Camp Brown; and doubtless at many other points in Wyoming, there are indications of very large deposits of crude petroleum and kindred carbonaceous substances.

At the first-named location, 10 or 11 miles east of Evanston, and known in that section as White's Oil Springs, borings have been made with a view to practical operations. Oil-bearing shales, from which came the drippings long observed, lie upon the surface, and are themselves a source of quite considerable supplies of oil; but at a depth of 175 feet the underlying sand-rock was struck, with an increase of oil. The present price of petroleum, coupled with the cost of transportation, does not afford a very powerful stimulus to this enterprise, but there is no doubt of the value of the deposit. The product is a heavy lubricating oil, suitable for oiling machinery. Coal, within 100 or 200 rods, is readily available, should works be established.

The oil-bearing shale near Green River City is seen in cuts made for the railroad, and throughout a large extent of country. Pressings have been made of the shale, with 30 gallons of good lubricating oil per ton as the result.

The deposit in the valley of the Little Popo Agie—one of the streams which form the Big Horn, and which flows from the east base of the Wind River Mountains—is also one of great interest. The locality visited by me is situated at a point in the valley of the stream just beyond Eagle Ranch, and about 25 miles this side of Camp Brown. Geologically, the region is one of upheaval. The sand-rock and a shaly rock have been so tilted that along a line of disruption extending in a southeasterly and northwesterly course as far as the eye can reach they appear to stand on edge. And I may remark, in this connection, that I afterward traced this same line of upheaval a distance of 50 miles, or some 25 miles beyond Camp Brown, even to the valley of the Big Wind River on the Indian reservation.

The Little Popo Agie flowing northward from the mountains, and cutting Red Cañon at right angles, forms an elbow to the northwestward where it strikes the line of upheaval, and makes that line its course and channel. Just at this point, half a mile or thereabouts below the elbow, oil is seen bubbling up with gas from the bed of the stream, which at that place was 20 or 30 feet wide and 1 to 2 feet deep. Breaking upon the surface, with iridescent hues, it flows down the stream and accumulates in eddies, so that it may be skimmed off with the hand. It is also seen to ooze from the sandy and shaly banks of the stream. An experiment made at one point on the stream, whence bubbles laden with oil kept coming up, showed that a gallon of the oil would accumulate in a few hours. At two places, within an ox-bow curve of the stream, holes like wells had been dug by order of the proprietor to a depth of 8 or 10 feet. These were full to a common level with water and oil. I dipped up a cupful of the oil and found it of a very uniform consistency, and apparently a superior article of lubricating oil; which subsequent investigations have shown it to be. The sample I brought with me is of a dark-brown color, and is reported to have a density of 1.9. Its non-inflammability has been demonstrated by tests recently employed by the Territorial assayer, who reports as follows:

I fitted up a special apparatus to determine the flashing and burning points of the oil. These points are, flashing, 280° Fah.; burning, 302° Fah. Ordinarily one would say that such an oil had *no* flashing or burning point, for these points are never given above the boiling-point of water.

In commerce, an oil having a flashing point of 110° Fah. is said to be a fire-test oil. That there might be a practical test of it as a lubricator, several barrels have been taken out and shipped to the shops of the Union Pacific Railroad. The company have not yet formally reported upon it, but I am told reliably that it stands the test remarkably well.

In the valley of the Little Wind River, near Camp Brown, are what they call, in that region, Asphaltum Springs. Considerable quantities of the product are constantly flowing out from the shaly rocks of the locality, and some of it has been utilized in the construction of roofs for the post hospital and other buildings. It cannot be called petroleum, for it has a tarry consistency and answers the purposes for which coal-tar and asphalt are used. It is doubtless quite identical in origin with the Popo Agie petroleum, however, being simply deficient in the more fluid constituents of that product. The supply is large, and in time it must be utilized.

GYPSUM, FIRE-CLAY, ETC.

Gypsum of excellent quality abounds in many localities. The best deposits of it that I have visited and examined are found along the valley of the Little Wind River, on the Indian reservation, and in the lava bluffs which overlook Horseshoe Creek—a little tributary of the North Platte—near the crossing of the wagon-road between Fort Laramie and Fort Fetterman. Both of them furnish gypsum of excellent quality, and have found local use, the former in the finishing of buildings at Camp Brown, and the latter in the plastering of the new residence just completed by Messrs. Walker and Johnson, on Horseshoe Creek. The article last alluded to presents three grades, quite distinct; the first hard and stony, the second soft and crumbly, like sugar, the third crystalline and beautifully transparent, the finest, indeed, I ever saw. But for the distance of this locality from the railroad, it would find a quite extensive demand immediately.

Fire-clay is said to occur at several places in the Territory. I have myself seen some that appeared to be of good quality north of Red Cañon and on the right bank of the Little Popo Agie, contiguous to the ranch of Mr. J. G. Lewis. I do not learn that practical tests of it have been made.

BUILDING MATERIAL.

Stone for building purposes can of course be found in all parts of the Territory—granites, sandstones, limestones, and marble. The most noticeable of these is the white marble found on the Laramie Plains, 25 miles north of Laramie City and 12 miles east of Cooper Lake Station. It occurs in the form of a ledge some 80 feet wide and at least 2 miles in length. The surface rock is so fine-grained as to raise the question at first of its being crystalline. It is considerably discolored, moreover, and is wanting in the necessary firmness and compactness. But on removing this rock and reaching the material wholly removed from the action of weathering, the marble is found to be not only free from fractures, lines of color, and general discoloration, but firm, white, and beautifully crystalline. Messrs. J. Pfeiffer & Son, marble-men of Saint Joseph, Mo., are quoted by Mr. Strahorn as saying:

We have dressed the samples of Wyoming marble, and are much pleased with their appearance. If the main body of the marble is as good as these samples, we should prefer it to the Vermont marble for monumental work. Any of it would be handsomer for store or residence fronts. This is the view we take of it while chiseling and polishing it.

If the opinion of these and other practical workers in marble should be fully justified by actual trial of the material on a liberal scale, these quarries must prove of immense value to the Territory and the entire country this side of the Missouri, as well as to the Wyoming Marble Company, who are the fortunate proprietors.

Fair clay for brick of the ordinary reddish color is found in almost every locality where demanded; but I am informed by practical builders at various points that bricks made from the clay at Laramie City are preferred on account of superior firmness. They are sold wherever made along the line for about \$—— per thousand.

THE COAL-FIELDS OF WYOMING.

Last of all our minerals, because that on which the others wait for help to make them available for the uses of man, I speak of coal. If our supplies of gold, silver, copper, iron, soda, petroleum, graphite, gypsum, and marble were vastly greater than now, and we were without corresponding supplies of fuel, they could profit us but little. There must be coal for the smelting of ores, for the processes of refining of crude materials, and for the generation of motive power. Without her vast stores of coal Pennsylvania could never have made herself the seat of flaming furnaces and founderies, nor yet of countless factories and thundering mills. Without her fields of coal England could never have gained her acknowledged industrial supremacy among the nations, and opened her markets in every country on the globe.

It is, then, a matter of vast importance that Wyoming, occupying a central position in that one-third of the continent which lies between the Missouri and the Pacific slope, with its treeless plains and but scattering mountain forests, with its numberless veins of the precious and baser metals, with its mountains of iron and other great mineral deposits—it is a matter, I say, of vast importance that Wyoming, thus situated and circumstanced, is possessed of fields of coal hardly second in extent to those of Pennsylvania and superior in quality or product. Taken in connection with geographical position and the other advantages possessed by this Territory, they afford guarantees of supremacy which need only the wisdom of practical statesmanship to assure their early realization.

The distribution of coal in Wyoming is so wide that enumeration of localities is impossible. It might almost be said that the whole Territory is one vast coal-basin, broken through here by a mountain-range, and there covered up by more recent deposits. Certainly it would hardly be extravagant to say that nearly one-fifth of the whole area is underlaid with more or less continuous beds of it. There is less, I think, in middle than in northern and southern Wyoming; but I do not now recall a single one of the many journeys I have made in all sections of the Territory during which outcroppings of coal were not seen. Throughout a southern belt of 50 to 100 miles in width across the southern portion, traversed by the Union Pacific Railroad, it shows itself almost constantly; it is found in the valleys of the Green and Snake Rivers, in the basin north and east of the Wind River Range; it crops out at many points both east and west of the Laramie Range; it shows itself in that beautiful region north and east of the Big Horn Mountains, as well as in the Powder River region; and it is abundant in all that broad section drained by the headwaters of the North and South Forks of the Cheyenne.

The mode of occurrence of the Rocky Mountain coal is thus set forth by Dr. F. V. Hayden, United States geologist, report of 1870:

The coal of the Rocky Mountains is distributed along their flanks as several leaves in the great book of folded strata, and invariably in the transition beds or between the Tertiary and Cretaceous. Nowhere in the world is there such a vast development of the recent Coal Measures, and in few places is their existence more necessary to the advancement and improvement of the region in which they occur. They lie regularly,

and in the main quite horizontally; though close to the mountain the beds are naturally tilted. The coals are called variously lignites, brown, semi-bituminous, and bituminous, though from their chemical constitution they ally themselves much more nearly with the latter. They are distinguished by their cleavage-planes, which latter are nearly perpendicular to the planes of lamination and to each other, and give to this coal (which is usually friable) a stair-form structure almost resembling the crystallization of some clusters of iron pyrites. It is hardly worth while to say that these coals differ in different localities as to general structure and chemical composition.

Again, speaking of their nature and quality, Dr. Hayden says, page 181:

It has been stated above that these coals belong in the main to the class of the bituminous coals, both by right of their chemical constitution and their physical properties

I come now to speak of Wyoming coals in particular.

Naturally enough, it is only the Coal Measures along the line of the railroad that have been opened. At many points remote, superficial openings have been made for local and domestic use.

The first important outcrop near the railroad, going west from the Laramie Range, is seen at Cooper Lake, in the center of Laramie Plains. The vein there is about 15 feet thick; the quality fair; the area occupied extensive, though it has not yet been very fully explored.

The first actual mining is done at Carbon, 50 miles farther on. There the quality is not the best on the line of the road, but it proves very good for locomotive use, and the railroad company have opened the mine quite extensively. The vein is 10 feet thick.

Analysis as follows:

	Per cent.
Fixed carbon	49.72
Volatile constituents	35.48
Ash	8.00
Water	6.80
	100.00

The annual production here amounts to something over 75,000 tons.

Proceeding westward, one observes beds by the wayside at Saint Mary's, Rawlins, Separation, and other points, until Rock Springs is reached, the locality of the best coal in the Territory, so far as proof has been made. Mines have been opened by the Union Pacific Railroad Company and by the Excelsior Mining Company. Both properly belong to the same measure, and there appears but little difference in the quality of the product. Both are of so good a quality for blacksmith, smelting, &c., as well as for locomotive and domestic use, that they have control already of a wide range of markets. The annual production of 1877 was 144,000 tons. An analysis reported by Mr. Strahorn, as made at the Massachusetts Institute of Technology, yielded the following results:

	Per cent,
Carbon	76.00
Oxygen and nitrogen	17.63
Hydrogen	4.75
Sulphur	0.07
Phosphorus	None.
Ash	1.35
	100.00
Coke	60.00
Specific gravity	1.36

The coke is represented as of good quality.

An examination of the railroad company's mine was in all respects satisfactory. Its veins are 4 to 9 feet thick; the machinery is good, and the working after the most approved methods. The Excelsior Company's mine, half a mile or more from the railroad, has been closed on

account, it is said, of discrimination by the railroad company in favor of its own coal in the matter of rates. The vein is about 10 feet thick. This coal can be placed on the track at the mine for \$1 per ton, and is actually delivered at points in Wyoming for a maximum of \$5.50, price varying according to distance, and at Omaha, over 800 miles distant from the mine, for \$8 per ton.

Near Carter Station, 74 miles still farther west, is found a very remarkable succession of coal strata interlaid with strata of sandstone. The exposure has a front of three or four miles, and the aggregate thickness of the coal strata, some of which are enormously thick, has been estimated at 400 feet. The coal is of good quality, but has not yet been worked to any extent.

At Almy, a little mining village nearly three miles from the town of Evanston, are veins of excellent quality and great thickness, which have been more extensively worked than even those at Rock Springs. The two principal mines are those operated by the Union Pacific Railroad Company and the Rocky Mountain Coal and Iron Company. The first of these I carefully examined in company with the officers. A vein of 20 to 35 feet in thickness, and with an easy dip toward the east, shows its front for a distance of several miles, and is known to extend far back into the hill. Large quantities of the coal have already been mined, and yet the work has only barely commenced. The product for the past year has probably fallen but little short of 125,000 tons. Four hundred miners, more than half of whom are Chinamen, are regularly employed here. The bulk of the Evanston coal goes to Utah, Nevada, and California, the remainder being mostly used by the Union and Central Pacific Railway Companies. The per cent. of carbon is less than that of the Rock Springs, being 49.90. In fact, the analyses made show a composition almost identical with that of the Carbon coal already given.

At many points in the vicinity of Evanston there are still other coal-fields, but of unknown extent. And directly north some 40 miles, on Twin Creek, a branch of Bear River, is an immense deposit of a coal which is reported to be superior to any other in the Territory as a coking coal, the yield of coke being 50 per cent.

The Union Pacific Railroad Company inform me that the product of Wyoming coal mines in 1877 was 275,880 tons; that from January 1, 1878, to October 1 it was 178,000 tons, and that for the entire present year it will aggregate about the same as in 1877.

From this brief general account it will appear, I think, that Wyoming is rich in its coal-fields, and that the quality of the product, considered in connection with the inexhaustible supply of this and other minerals, fully warrants the hope of a great and prosperous future for the Territory, even though no account were made of the other resources, of which I have yet to speak, under the heads of pastoral and agricultural industries.

MINERAL WATERS.

Springs charged with minerals, such as soda, sulphur, and chalybeate springs, are found in many localities. Some are hot and others are deliciously cold. The most remarkable of those discovered are the hot springs in the Sweetwater Valley, in the valley of the Platte, some twenty or more miles south of Fort Fred Steele, and at Camp Brown, on the Indian reservation.

The Hot Springs, so called, in the valley of the Platte and at the base of a range of the Medicine Bow Mountains, have been improved and are already a place of considerable resort for invalids. I have seen no report

of a chemical analysis, and do not know that one has yet been made. Sulphur and alkaline salts are manifestly present, and the temperature is quite sufficient to warrant the name accorded to the springs. Rheumatic patients are said to be especially benefited.

The Hot Springs near Camp Brown are extremely interesting and doubtless very valuable. They pour their waters into a common circular basin of about 300 feet in diameter and 4 to 15 or 20 deep, in the valley of the Little Wind River, and quite near its banks, two miles and a half below the military post above-named. They might properly enough be called *boiling* springs, for in the center there is a tumultuous motion of the waters coming up from beneath, and the temperature there is near to the boiling point, 190° Fahrenheit. Around the rim the waters have a lower temperature in consequence of natural cooling, but even there a considerable amount of physical courage is necessary to enable one to dip himself into them. An outlet, improved by a water-gate, allows of a tempering of the waters somewhat, according to the desire of those who would use them. A quite commodious and comfortable bathing-house has been erected on one side of the springs, within which baths are taken, and from which they who would venture it may swim out into the hotter basin.

The people of the post frequent the springs with pleasure as well as advantage to health, and the Indians occupying the Shoshone and Arapahoe villages also enjoy them, if one may judge from the numbers who resort to them at nearly all hours of the day.

The Sweetwater Hot Springs I have not visited. They are said to bear a close resemblance to those above mentioned, being both sulphurous and alkaline.

Of the cold sulphur springs, none are more interesting than those in the neighborhood of Rawlins, about one and a half to two miles from the railway station. The water flows out from under a stratum of blue limestone. It is exceedingly palatable to one accustomed to waters of that class, and has an abundant flow. These springs will doubtless be improved at an early day, and be much resorted to, certainly by the people of that locality.

FORESTS OF WYOMING.

The forest areas of Wyoming have been variously estimated at from 5,000,000 acres to 15,000,000 acres. After journeys in portions of the several mountain ranges of the Territory, I am satisfied that the higher estimate is quite as near the mark as the lower. And then I have not yet visited the Black Hills region, whose large timber areas, if correctly reported, must further enlarge my own estimate.

Although there are many considerable bodies of timber (mostly cottonwood, aspen, ash, and box-elder) along the Platte, Laramie, Powder, Cheyenne, Tongue, Little Horn, Big Horn, Wind, Green, Snake, and Bear Rivers, and many lesser streams, the *forests* are in the mountains, where they consist chiefly of pine, spruce, and fir, with hemlock and cedar in some localities. The pine, though much like the Norway in appearance, is much whiter and harder. In many localities the *Pinus ponderosa* is chief. Being of slow growth on account of the altitude of the forests, and of shorter growth, it is also more knotty, and of course, on this and other accounts, less well adapted for making clear lumber for house-finishing; but it makes very strong and durable timber for the frames of buildings, bridges, &c., and is also a valuable material for railroad-ties. The lumbering region is at present of necessity confined pretty much to the southern or settled portion of the Territory, though

there are several mills at work in the central and northern portions, as at Fort Fetterman, new Fort McKinney, at the eastern base of the Big Horn Mountains, in the Sweetwater mining district, at Lander City, at Camp Brown, and doubtless at several other places in regions remote from the railroad, but their production is for immediately local use, and quite limited, while at the sources of the Big and Little Laramie, the Medicine Bow, the Platte, and Bear Rivers, streams, all of which head in sight of the railroad, with its line of settlements, and actually flow underneath its track in their northward course, there are numerous camps opened and conducted with a view to the railroad demand, and a general supply of the Territorial markets with such timber and lumber as they can produce.

An effort has been made to secure reliable statistics of the production at the various points above mentioned, but they are not now at hand, and must be omitted from this report. It would be approximately correct to state that the annual product of these mountain forests on our southern border is—

Lumber (feet)	5, 000, 000
Shingles.....	3, 000, 000
Lath.....	1, 000, 000
Railroad-ties	500, 000
Charcoal (bushels)	2, 000, 000

The number of men engaged in these enterprises must exceed one thousand. This amount of production, small though it be in comparison with that of the great lumbering States, is quite a beginning for a new Territory.

WILD GAME AND FISHES.

The fauna of Wyoming includes vast numbers of the most valuable species; and, to the sportsman, is one of the most attractive fields on the continent, as is manifest from the great numbers, both from various portions of the United States and from Europe, who resort to its plains and mountains for the pleasures of the chase and of the angler's art. Here that noblest beast of the Rocky Mountain region, the elk, is still found in great herds, sometimes numbering thousands. Here the buffalo still lingers, loth to leave the haunts so long enjoyed by him from time immemorial, and still offering his favorite grasses in greatest abundance, as well as broad areas seldom trod by the foot of man; though, quick to catch the signs of the times, he is withdrawing himself to the far northern ranges in the basin of the Big Horn and its branches, and along the valley of the Powder. Thousands of them are slain every year for either hide or flesh, and too often for neither—simply for the incomprehensible pleasure of killing so ponderous and formidable a beast. One sees their carcasses or skeletons on every journey in whatever section, and, seeing, feels a touch of sadness that a species so harmless, so valuable, and lately the undisturbed occupant of so vast a country, is rapidly approaching extinction.

Here, too, the beautiful, light-footed antelope, singly, in pairs, in little companies, and sometimes in herds, grazes along the foot-hills and on the higher table-lands; though seemingly his happy self only when, for the time, wholly forgetful of the insatiable hunter and aggressive pioneer. He is no longer altogether at home, even in his chosen retreats, where man is seldom seen, but has learned to post himself as sentinel on some convenient height, that he may give the timely warning to his timid companions. And that yet more beautiful, as well as more rare and valuable species, the deer—he is yet here. Black-tailed and white-tailed

both abound in our mountains, and daily serve the lover of wild meats on nearly all our tables. Finally, among the hidden places of the mountains, the strangest and shyest of them all, he of nimble foot and ponderous horn, the mountain sheep.

This list of game animals, desirable for food and still abundant in the Territory, could be prolonged until it embraced nearly all that are found anywhere on the continent—jack rabbits, common “cotton-tail” rabbits, blue rabbits, squirrels, and so on. Of game birds there are also many—partridges, grouse of many varieties, quail, sage-chickens, ducks of nearly every sort, and geese.

Among the animals especially sought for their furs, the beaver, otter, mink, marten, ermine, and muskrat, as well as those more usually classed as animals of prey, such as the fox, coyote, wolf, wild-cat, lynx, panther, mountain lion, and bear (black, cinnamon, and grizzly), also belong here, and afford to both Indian and white hunters sources of considerable gain.

The streams everywhere abound in fish of choice varieties, including the speckled trout. It is said that this most gamy and most palatable of all the finny tribe has never been found in the North Platte or any of its affluents; but it abounds in Wyoming tributaries of the South Platte, and in hundreds of other streams, especially those which have their sources in the Laramie, Wind River, Uinta, and Big Horn Mountains. That it is not found in the sources of the North Platte and its branches, if true, is without assignable reason. Steps will be taken to test the suitability of its waters. This species is so much sought by everybody, that pains should be taken to give it a place wherever it will thrive.

MANUFACTURING ADVANTAGES.

It will be manifest from the foregoing account of the great variety and vast extent of those natural products of the Territory which in all countries are the basis of great industries; from the great number and convenient distribution of its water-powers, as well as its inexhaustible supplies of coal; from its exceptionally favorable position among the States and Territories of the Rocky Mountain region; and from the extraordinary facilities for the transportation of both raw materials and manufactured products afforded by the Pacific Railway, which for a distance of nearly 500 miles traverses it from east to west, and by its many streams and easy wagon-roads; it will appear from all these important facts that Wyoming is possessed of very superior manufacturing advantages. With gold, silver, and copper mines multiplying and increasing their production, and with the materials required for the reduction of these metals from their ores, it cannot be long ere Wyoming will have her own works as complete and as profitable as any in the mountains. She may continue to send her coal and her fluxes to Utah and other adjoining mineral districts unsupplied with the necessary materials, but she will not be likely to ship her ores there also.

With mountains of iron, magnetic and oxide, both of superior quality, and lying side by side with perhaps the best coal in the mountains for reducing and working that most useful metal, the people of Wyoming will not always import their railroad iron, their merchant iron, their stoves and heavy hollow wares, and their ponderous machinery from less favored localities one and two thousand miles away.

With deposits of graphite equaled by few on this side the Atlantic, why should we not have mills for crushing it and factories for working up the product?

With marble preferred by some manufacturers, that can be wrought and laid down in all our mountain towns and even in the cities and towns of the Missouri Valley at less than half the cost of the New England marbles, there is still another field for enterprise and capital that should be entered without much further delay.

With supplies of native soda, sulphate and bicarbonate (almost in condition to answer the demands of commerce), that have no parallel in any country, it cannot be supposed that we shall be long without our soda refineries, and our great establishments for the manufacture of soaps of every variety.

With inexhaustible supplies of native sulphur, works for purifying and shipping this article of commerce must one day be established.

With soda lakes and beds of silica side by side, and supplies of lead at our very doors, what need that the heavy and fragile article of glass should be always furnished to these far-away communities by eastern cities which must first collect the raw material from localities hundreds of miles away?

With forests of pine, hemlock, and cedar, we shall also have numerous factories for the supply of these interior communities with barrels, pails, and other wooden wares, as well as with lumber, lath, shingles, and charcoal.

With countless herds of buffalo, elk, and deer, our plains occupied by hundreds of thousands of cattle, and our forests and waters swarming with fur-bearing animals, we must also have establishments for the dressing of skins and their manufacture into the leading articles of domestic use.

Already we have the beginnings of enterprises like these. We have, at the end of railway divisions, shops for the repair of rolling-stock, and at Laramie City an extensive mill for the rerolling of railway iron. We have at several points mills for the manufacture of lumber, laths, and shingles, and many kilns for the burning of charcoal. We have at Rawlins, as before related, mills for the grinding of iron oxide for paint. We have at Cheyenne shops for the manufacture of wagons and carriages, shops for the manufacture of jewelry from Wyoming gold and Wyoming precious stones, with, of course, the usual shops for supplying the classes of articles everywhere made on order of the individual citizen. But they are only the beginnings, and no pains should be spared to give them a vigorous expansion.

PASTORAL RESOURCES.

I now touch upon the present great resource of Wyoming. Careful inquiries concerning the interest of stock raising and grazing in other States and Territories have led me to the conclusion that the advantages of this Territory as a pastoral region are without parallel.

In the preceding chapters it has been shown that, while a mountainous region, its ranges are so broken, scattered, and interspersed with valleys and table-lands, as well as flanked and buttressed for the most part by sloping strata of the more recent rock formations, that one, in crossing the Territory in almost any direction, would find it difficult to believe himself in the midst of the Rocky Mountains. It was also shown that while the average altitude of the Territory is about one and one-fifth miles above the sea-level, and mountain peaks capped with eternal snow are visible from almost any point within its boundaries, it has certain physical features and surroundings which give it a peculiar and very desirable climate.

As a result of these favorable conditions of fertile soils and tempered climate, almost the entire surface of the country, plains and lower mountains, as well as valleys, is clothed with nutritious grasses. In some districts, as in portions of the Green River Basin, in the section south of the Sweetwater Mountains, and in several others of the central area between the Sweetwater Valley and the southern extremity of the Big Horn Mountains, the grass is scattering and insufficient for cattle-grazing, and even in some of the richest valleys, as well as in the midst of plains embraced within chosen cattle-ranges, that ever-ready plant, the sage-brush (*Artemisia tridentata*), has taken the ground and holds the supremacy. But in these less desirable localities there is often enough of grass to afford sustenance to considerable numbers of cattle, while the tender sort of sage-brush is also relished by them.

Throwing out the exceptional districts altogether, and excluding the mountain ranges either barren or covered with thick growths of timber, and there remains an aggregate area larger than the whole of New England upon which there is growing an abundance of the most nutritious grasses, an area capable of sustaining and fattening millions of domestic animals. Connect with this fact of primary importance that remarkable distribution of water which renders it possible to open innumerable ranches and cattle-ranges, which makes almost every square mile of pasturage available; that peculiarity of the surface—undulating, with valleys, “draws,” cañons, bluffs, and hills so distributed and related as to afford to the herds in nearly every locality protection from storms on the one hand, and on the other secures to them a certainty of food on the ridges made bare (if the storm be snow) by the winds after it is past; that absence of winter rains, so hard upon cattle, and so destructive to sheep unhoused; that extraordinary dryness and lightness of our snows which prevents their incrusting and insures their drifting from the ridges and hillocks, so that stock are never long without easy grazing; that no less remarkable dryness of the atmosphere which gives to it the property of a non-conductor of heat and electricity, so that the exposed animals better retain their animal heat and keep their vital forces in full reserve; and, last of all, but by no means least, that peculiarity of the autumnal season which cures the rich grasses so gradually and perfectly that all winter long they are as standing hay and even much better (for the ripened seed they retain upon the stalk makes them more like grain)—associate all these important advantages, unequaled, as I believe, and you have in Wyoming the finest pastoral region in the world.

Besides these advantages, it is proper to bear in mind that along nearly all the streams there are moist lands upon which is annually produced an abundance of the taller grasses suitable for hay, so that practically every ranchman or owner of herds is able to put up hay in almost any quantity for his work horses, his sheep, should he have any, and for such young and tender cattle, blooded or native, as would be better for a little special care.

THE CATTLE BUSINESS.

There is still another consideration to be borne in mind: Wyoming holds a geographical position at the very front of the cattle-producing States and Territories north, west, and southwest of it. With Montana, Idaho, Washington, Oregon, and Utah, transportation is and must continue to be an important matter. I mean to say Wyoming has the advantage of nearness to market for cattle ready to be shipped, and of being the great intermediate grazing ground for such young cattle as

her citizens may wish to buy, and as it is found by original owners more profitable to sell at that age than to mature and ship at great expense by rail.

Again, it is no small advantage to be at the very back-door of those great corn-growing States of the Missouri Valley, whose grain can be had at a very low price and turned to such excellent account as a means of improving the quality of our beef. The time is at hand, I think, when the stock-men of Wyoming will learn that greatly increased profits can be made by driving the thriftiest and most promising of their grass-fed and nearly matured cattle down to Nebraska, or even to send them still farther east and have them fed for so much per pound or per hundred pounds added to their weight by such feeding.

It will be inferred from the foregoing that winter-feeding of cattle and horses here is unnecessary. This is probably now the general understanding wherever there is anything like a correct idea of the conditions of successful stock-raising in this Territory. Of sheep it is only true in part. They often go through the winter without a spear of hay, but as they are constitutionally more delicate than cattle and less able to provide themselves with grass in case of heavy snow-falls than horses, every prudent stock-man will make provision accordingly.

There are two general methods of conducting the cattle business here. The first, and hitherto the most common, is the grazing method, pure and simple. The person proposing to embark in the business selects his location on some stream where he can always be sure of water, builds a cabin or substantial house as his means and pleasure appear to warrant, erects a stable for his horses, and his strong inclosures (called "corrals") in connection for convenience in handling such of his cattle as need special attention—for branding, &c.—or purchases all these ready prepared, and then proceeds to gather in his herds. This he may do by purchasing those driven in from Texas, Montana, Oregon, or Washington, and offered for sale, or he may go to those sections himself and select his cattle, driving them to his range or having them delivered according to the terms of his purchase. Sometimes the first plan will turn out better, sometimes the latter, the result turning upon various circumstances to be carefully considered at the time. During the past season the prices have ranged as follows—cattle delivered:

Texas cattle.—Yearlings, half male and half female, \$8.50 to \$9; two-year-olds, half male and half female, \$12.50 to \$13; three-year-olds and over, male, \$17.50 to \$18; cows, \$12 to \$13.

Western cattle (from Oregon and Territories).—Yearlings, half male and half female, \$13 to \$14.50; two-year-olds, half male and half female, about \$17; three-year-olds and over, male, \$22 to \$25; cows, \$20 to \$22.

Steers are preferred, but every purchaser will include a proportion of heifers and cows, as a means of holding his herd together better, as well as of increasing and improving his stock. In such cases he should have good Durham bulls in the proportion of four or five to every hundred cows.

At first the supply of young cattle was almost wholly from Texas, but those from the West (from the Territories and from Oregon) are now preferred.

As the whole country is open to his enterprise, except that he must not trespass upon the actual ranch of another, he could even make his purchase, if more convenient, in advance of a permanent location, and, with his herds, herders, and tents, feel his way to the best available spot. But the explorations are better done first, then the matter of placing his stock is a direct and simple business. His herders will cost

him about \$30 to \$35 per month, board included, and he will need four of them per thousand head of cattle for the first one to three thousand, ten for five thousand, and twenty for twenty thousand head; the number proportionally lessening somewhat as the herd increases in the number of animals. He cannot be too careful about selecting them, for upon such carefulness of choice will depend the per cent. of his profits.

If he should not intend to give very close attention to the business himself he will take every pains to find a foreman who is competent and faithful. For him he will pay \$50 to \$100 per month.

There will need to be furnished four or five horses per man to insure the thorough working of the cattle. These can be had for \$30 to \$50 per head. The small mongrel ponies known throughout the mountain region as "bronchos" will prove most economical. They are tough, yet nervous, quick, and fleet; will turn short corners in heading off cattle without stumbling; will endure much continuous service without injury, and will keep in good condition on simple grass.

If our hypothetical operator has not learned it already, he should know that in a season when the grass is not so good as usual, or when his more permanent range is not so extensive as to serve his herds the year round, he may easily find a summer range for them, though it be a hundred or more miles away, bringing them back again in the autumn for winter quarters. There are many such locations freely open to the first comer, simply because they are liable to heavy snows, or do not afford the requisite shelter and other advantages above alluded to. When winter is upon him, he will learn that unless remarkably well located, where ample protection is afforded from driving storms, his cattle will wander far away; that sometimes during a driving snow-storm they will drift, in spite of all his herders can do, sometimes fifty to a hundred miles before being brought to a permanent stand. He may at least be certain of this—they will not face about until the storm has ceased. But, happily for him, there are certain regulations, adopted by stock-men in common, and enforced by them through the agency of a stock association, which afford protection to his interests. His stock may have scattered very widely, so that not half of them are found on his range, or anywhere else in a body, in the spring, but with the return of May will come the grand "round-up," when through the help of everybody else—he helping everybody in turn—his strays will be gathered up and delivered to him for return to their proper range. Possibly he will never find every one of them, for death by disease or accident will now and then overtake an animal even in Wyoming; besides which, a band of cattle-thieves may encroach upon his rights, or some other owner of cattle, by mistake, get a new brand upon one of his creatures. But the loss from all these causes is so small where reasonable care is taken that it should give him but little trouble. It is the concurrent testimony of all with whom I have spoken on the subject that 2 per cent. per annum will cover the loss from all causes. Some say 1 per cent.

The rounding up is done in this wise: On a certain day of the year, usually early in May, as determined by the stock association, each owner of cattle sends out a number of herders proportioned to the number of his cattle, to unite with others of that region in the work of gathering to an appointed place of rendezvous all the cattle that can be found within the bounds agreed upon. They go forth in squads, some this way, some that, though all under the direction and control of a chosen foreman of that "round-up." By and by they will have worked their respective sections all over and brought in all the cattle they could find, and the "round-up" will be complete. Each owner, if not there him-

self, will have an interested and competent man to represent him and see that every creature bearing his brand is turned out to him and that the unbranded calves belonging to him accompany their dams to the spot chosen for the aggregation of his stock. The work of separating is called "cutting out." It is done by men on horseback, who ride among the great body of cattle, numbering often several thousands, and selecting cattle of a certain brand, move them quietly to the outside of the grand herd, when they are instantly taken in charge by other mounted men in waiting and hurried away to the designated spot. Frequently, especially at the first, when the nucleus of the individual herd of which they are to form a part has not yet been found, so as to be noticeable, an animal will so persistently turn back to the general herd as to make lively work for a dozen men. This is especially the case with young or new cattle which have no idea of what is expected of them. If necessary, the lasso is used, and there are always herders who know how to use it with marvelous skill. The individual herd secured is then driven either to the ranch of the owner for a new beginning of the year, and especially for the branding of the calves, or to some convenient corral within the general range, where that work can be done as well. The two year-olds and those older are driven into narrow passages between stockades, and when in quarters so close that they cannot escape the hot iron, receive on side or hip the sign by which they are henceforth to be known. The calves are thrown upon the ground and branded. Brands must be recorded by the county clerk, and no brand can be recorded more than once. The laws of the Territory regulating this whole matter appear to have been well considered, and heavy penalties are attached to their violation. The period of "round-up" is about two months, ending with June. After that the work of assorting for market begins. Not unfrequently a considerable number of the best feeders and easily fattened animals in a good herd will be ready to send off in July; but the general season begins later and continues until winter. Three-year-olds are often sold, but the more common ages at which cattle are turned off are four and five. When they are brought from remote places, as from Texas or Oregon, it is considered better to keep them over to the second year than to sell them the first year after importation; the reason being that during the first year they are adapting themselves to the climatic and other changes incident to a new location, and do not get fairly in condition to improve their best until a later period.

The estimated average cost of keeping is about as follows: For herds of 1,000, \$2 per head; for herds of 5,000, \$1 per head; for herds of 10,000, 80 cents to \$1. Many cattle-men, well situated and having large herds of their own, are willing to receive and care for small herds belonging to others for the sum of \$1 per head per annum; taking the same care of them as of their own, but of course not being responsible for losses.

The profits realized will naturally depend upon judiciousness of location, terms of purchase, skill of management, and the ruling of the markets during the season when sales are made. In the past, enormous profits have been realized in some cases, even 50 to 100 per cent. on the investment. But with the increased number of herds introduced, the increase in price of young cattle, owing to the growing demand, and, above all, with the present low price of beef, the profits more likely range between 20 and 40 per cent.

Stock-men who intend to remain quite permanently in the business, and who are content with slower present but surer future gains, are adopting the second method above alluded to, namely, that of *breeding* as well as grazing cattle, so as gradually to reach a condition of com-

parative independence of outside western breeders, whose prices are beginning to be, and are always liable to be, higher than can be paid without too much loss of margin. The gain will not be merely the difference between purchase-price and cost of breeding and raising to that point; the larger gain will be in the improved quality and market-value of the beef produced by the crossing of the native stock with the Durham. It may be safely assumed that this mixed system is bound to grow in favor the more its advantages are tested and understood.

In concluding the discussion of this interesting subject, it deserves to be remarked that, while the opportunities for amassing great fortunes in five or six years are not equal to what they have been, the stock business in Wyoming, for security and the magnitude of its profits, is to-day unequaled by any other of which I have knowledge in this part of the world and in these times.

There are, probably, at this moment not less than a quarter of a million to three hundred thousand head of cattle grazing in the valleys and on the great plains of Wyoming. It should be understood, therefore, that the best of the locations, more convenient to shipping points and nearest to the settlements, have been taken up. But areas are vast here. During the season past I have made whole-day journeys through beautiful sections of the Territory, in every way desirable, without seeing a single domestic animal. This remark is especially applicable to the northern portion of the Territory. From old Fort Reno, on the upper waters of the Powder and ninety miles beyond Fort Fetterman, northward to the Montana boundary (over 100 miles), and from the Black Hills on the east to the Indian reservation and National Park on the west, I did not see and could not hear of a single herd of cattle. It is an area equal to that of the great State of Pennsylvania, exclusively occupied by elk and buffalo and the other wild beasts of mountain and plain; and that, too, the choice portion of the Territory, so far as I have been able to see. Of its climate I know only what was told me by here and there an Army officer who had been across it in winter on some military expedition, by some adventurous scout or hunter, or by a few aboriginal inhabitants, all of whom concur in favorable accounts, especially asserting that the winters are so mild as to make its valleys the favorite haunt of the buffalo. At the west of the Big Horn are the Owl Creek, Cottonwood, Gray Bull, and Stinking Water Valleys, productive and beautiful. On Crazy Woman, Powder, Lodge Pole, Clear Fork, and Piney are meadows of surprising richness and almost endless succession. Even the low mountains of this region are generally clothed with grass, and in the very bosom of some of them are cup-like, grassy plains and meadows of such exceeding beauty that they must long remain as cherished pictures in the gallery of memory. As for the section of country traversed in my sweep around the northeastern side of the Big Horn Mountains, I shall never be able to express the enthusiasm it enkindled and the pleasure it has given me. For more than a hundred miles there was a succession of crystal trout-streams fringed with cottonwood, ash, and box-elder; their valleys, waving meadows, and the beautiful undulations between also clothed with luxuriant grasses and bedecked with flowers. To the right, far as the eye could reach, sloped valley and plain towards the distant Panther and Rosebud Mountains, while on the left the majestic mountains of the Big Horn Range, rising abruptly and lifting their heads above the fleecy clouds, added grandeur and glory to the landscape. What an Arcadia was here, waiting for and only needing the herdsman and his flocks to make it complete.

I do not forget that this whole region was but so lately as 1876 the home

and battle-ground of hostile Indians; that it was in sight of this very picture I have faintly drawn that the gallant Custer and his noble band went down before a savage foe. But two years have wrought a marvelous change. Sitting Bull and Crazy Horse are no longer there, nor are likely to return to a region for which they fought so desperately, but on which they have at length sullenly and hopelessly turned their backs. The Crows, who occupy the reservation near Fort Custer in Montana—the nearest tribe—are friendly. The Dakota and Nebraska Indians are 200 miles away, with Forts Fetterman, Reno, and McKinney between; and the friendly and peaceful Shoshones and Arapahoes—the only Indians now in Wyoming—are quietly occupying their reservation in the valley of Wind River, as far removed on the other side.

I would not be understood as saying there is no danger whatever to be apprehended from Indians in that quarter of the Territory, but the danger appears to be slight and to be rapidly growing less.

On my way back from there I was met by several little parties of adventurous pioneers exploring for good locations with the intention of taking in herds of cattle next spring. To say the least, such a region cannot long remain unoccupied.

SHEEP HUSBANDRY.

Next to the cattle business ranks sheep husbandry. It was later in getting a start, because the latitude and altitude of Wyoming appeared to render it doubtful. The experiment has been well tried, however, and this branch of pastoral industry is now steadily growing in favor. In fact, it has already gained an important rank. It has the disadvantage of requiring a little more care and watchfulness, and the per cent. of loss from storms, disease, and accident is somewhat greater. But, on the other hand, it admits of beginning with much less capital, and is said by many who have herds of both cattle and sheep to be really more profitable under proper conditions.

From a gentleman who now manages a number of sheep-ranches, with flocks aggregating 1,500 head, I gather the following facts touching the usual mode of procedure in stocking a ranch in a quite moderate way, together with the profits of such an enterprise.

The smallest number with which an economical beginning can be made is 1,500 head. It will cost no more for improvements and help to manage this number than to manage 1,000. The beginner will carefully select his range with reference to feed, protection from storms, water, and meadow land. If he would commence with 1,500 head of Mexican sheep, his improvements—cabins, corrals, &c.—need not cost him over \$500. He will buy picked white yearling and two-year-old ewes of the desired number at about \$2 per head, delivered on his ranch; wethers for about \$1.65; locating them late in October, care having been taken to put up a few tons of hay. Many flocks go through the entire winter without a particle of any feed but grass, but the provident husbandman will put himself on the safe side. To the desired number of ewes he will add merino bucks in the proportion of one to fifty ewes. These will cost him about \$10 per head. The whole flock will require but one shepherd. The increase will amount to about 85 per cent. of the whole number, and will be worth to him about twice as much per head as the original flock. The shearing will cost him 6 cents per head, incidentals included. The yield of wool from the Mexicans will be about 3 to 3½ pounds, "in the dirt"; from the bucks, about 15 pounds per head. The profits will of course depend on the market price of the wool clipped. During the past year the Mexican wool has

brought but 12 cents per pound; product of the first cross, 20 cents. The gentleman referred to assures me that on a flock of 1,500 sheep purchased as above and managed on shares, the contractor incurring all the expense for improvements and equally dividing the product and the increase, he had netted 60 per cent. per annum, or 180 per cent. in three years. That he has constantly enlarged his operations, until now he and his partner have 15,000 head of sheep and \$47,000 in the business is sufficient proof of confidence and of general success.

To make the whole matter more clear, I give the following restatement of the cost and profits of establishing and managing a ranch with 1,500 head of sheep during a term of two years:

First year.

Cost of improving ranch	\$500 00
Cost of 1,500 picked white yearling and 2-year-old Mexican ewes, delivered, at \$2	3,000 00
Cost of 30 merino bucks, at \$10	300 00
Cost of hay that may be used	100 00
Incidentals	25 00
Pay of herder at \$25 per month	300 00
Board of herder at \$10 per month	120 00
Cost of shearing 1,455 head (original 1,500 less 75 lost, and 30 bucks) at 6 cents per head	87 30
Five per cent. loss (75 head ewes at \$2)	150 00
Interest on above amounts, at 12 per cent.	531 87
Total cost, expenses, losses, and interest	5,114 17

State of account at end of first year.

Value of 1,425 2-year-old ewes, at \$2.25 each	\$3,206 25
Value of 30 bucks	300 00
Value of improvements	500 00
Value of clip from 1,425 Mexicans (3 pounds per head, at 12 cents)	512 00
Value of clip from 30 bucks (15 pounds per head, at 12 cents)	54 00
Value of the 85 per cent. increase (1,275 lambs, at \$1.25)	1,593 75
Total credits	6,166 00
Deduct cost, expenses, losses, and interest on investment	5,114 17
Credit balance at end of first year	1,051 83

State of account at end of second year.

Value of original Mexicans, reduced by loss to 1,354 head, at \$2.25	\$3,046 50
Value of merino bucks, now 53, at \$10 each	530 00
Value of 1,211 cross-yearlings (1,275 less 5 per cent. loss), at \$2.50 per head	3,027 50
Value of added improvements	250 00
Value of clip from 1,354 Mexicans, 3 pounds each, at 12 cents	487 64
Value of clip from 53 bucks, 15 pounds, at 12 cents	95 40
Value of clip from 1,214 grade lambs, 6 pounds each, at 20 cents	1,456 80
Interest on \$1,051.83, balance at end of first year, at 12 per cent	126 22
Total credits at end of second year	9,020 06
From this deduct:	
Cost of 23 additional bucks, at \$10	\$230 00
Cost of additional improvements	250 00
Labor	450 00
Hay	100 00
Cost of shearing 2,618 head, at 6 cents	157 08
Total debits	1,187 08
At end of second year's business (9,020.06—1,187.08)	7,832 98
Add first year's balance	1,051 83
Assets at end of second year	8,884 81

But little loss is sustained on account of disease, if a healthy flock is first secured. The dryness of the soil not only prevents the foot-rot, so common East, but sheep affected with it are readily cured.

It is estimated that the number of sheep now in Wyoming considerably exceeds 200,000. In the mountain regions, as well as on the plains, there are immense ranges specially adapted to sheep husbandry, and the great success of the trials heretofore made must lead to a rapid development of this important branch of industry.

HORSES.

The number is few of those who devote themselves exclusively to the raising of horses, though very many associate it in a limited way with sheep husbandry and cattle-grazing. It requires a larger outlay to start the business, and the risks are somewhat greater. So far as I have observed, less attention than should be is paid to securing suitable brood mares and stallions, especially the former. Bronchos are too small to produce the most salable horses, unless it be for use on the ranches in the handling of cattle, &c., and the prices commanded by that class of horses do not make the breeding of them very profitable. By using good-sized American mares and good stallions or superior jacks handsome profits may be insured.

The bronchos are brought from Arizona, Texas, and other regions. They sell here at \$20 to \$40, according to age and quality. Mules bred from them are too small to sell well. Crossed with the Normandy stallion, as is often done, they produce a good-sized stocky animal that answers pretty well for general teaming purposes.

There is certainly no region of country where horses can be more safely or profitably grown than in Wyoming, and that this branch of business has received less attention than those above considered is simply because at the present it is generally considered less profitable.

AGRICULTURAL RESOURCES.

He who bears in mind that Wyoming is at once a part of the Rocky Mountains and of the Great American Desert, that its general surface is nearly or quite as high as the timber line on the Alps, and who forgets the climatic peculiarities of this region, and that, in fact, it is remarkably watered, will doubtless need a considerable array of facts to establish him in the faith that it possesses important agricultural capabilities.

We may admit at once that agriculture is nowhere possible here without irrigation. It is a fact that during the last season I have seen some magnificent crops growing without a drop of water artificially applied; potatoes, for example, yielding 300 bushels per acre. But after all, that is not a usual thing. They were planted with the expectation that they would require irrigation. But the rains soon came and continued to fall so very often throughout the season that the need of irrigating them never came.

Admitting the practical necessity for irrigation, we may as well go farther and concede that there are some crops successfully grown in the same latitudes farther east that cannot be produced here. Indian corn and the larger fruits, such as apples, pears, and peaches, are not often attempted. But we can grow and have actually produced excellent crops of about every other product of the soil commonly grown in the Northern States. There are now in this office some as fine samples of wheat, oats, clover, timothy, red-top, and other grasses, gathered by my own hand in the valley of the Big Popo Agie (Lander Valley), 15 miles this side of Camp Brown, as can be found in any State in the Union. And

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they were not the product of garden culture. They were gathered off a farm of 160 acres all in cultivation, and itself but one of a number of farms in that immediate neighborhood aggregating 1,500 acres under thorough and very successful cultivation, whole fields of wheat standing over 5 feet, and so thick that I walked through it with difficulty; oats, also over 5 feet in height and as heavy as they could stand and nodding with the weight of grain; timothy, 4 feet and of first quality; clover, $3\frac{1}{2}$ feet, standing erect; the other grasses equally luxuriant, and all promising to mature a most abundant harvest. Mr. Meigs, the farmer from whose fields the samples were gathered, has since sent me word that his wheat more than fulfilled the pledges given him that it would yield 50 bushels to the acre.

There are also here before me rare samples of ripened wheat and ripening oats produced by Mr. J. G. Ferris, on the Little Popo Agie, whose yield was no less great. So, likewise, in very many localities—in the valleys of the Little Laramie and the Big Laramie, in the valleys of Bear River, Platte River, and on a multitude of little streams in all settled portions of the Territory—successful agriculture is a fact. As for garden culture, its products are simply marvelous for size and yield. The soils are remarkably well suited to produce vegetables of superior quality and enormous yield. At Fort Fetterman, in the great garden belonging to the military post and cultivated by direction of the very enterprising and capable commandant, Capt. E. M. Coates, were found results that would do credit to any locality and to the most experienced professional gardener; potatoes, beets, onions, asparagus, beans, peas, lettuce, radishes, turnips, carrots, parsnips, cabbage, cauliflower, cucumbers, squashes, and melons, all most excellent and of extraordinary growth. Near Cheyenne, at Laramie, and in many places, like enterprises are succeeding quite as well.

It may be considered as settled that the extent of our agriculture depends solely on the amount and availability of the water supply. Let us look the Territory over a little, therefore, with reference to this question.

Calculating with carefulness the length and average width of the principal valleys proper, adding something to this for the great number of lesser streams, and something for the advantage gained from the rapidity of current of many streams (a circumstance which greatly increases the economy of use, where the volume of water is large), and the aggregate area of lands that can be brought under cultivation is probably not less than eleven thousand square miles, or say eight million acres. It may even be ten million acres.

In view of the entire success of recent undertakings in agriculture and the remunerative prices paid for farm and garden products, we may quite confidently expect this branch of industry, too long neglected, to make such progress as will very soon render our population self-dependent, so far as the food staples are concerned.

An experiment has just been commenced on the Laramie that will do much to give agriculture an impetus, if successful. Prominent citizens have united in the purchase of large tracts of land and are constructing a canal or ditch 12 feet wide and 12 miles long, from the upper waters of Big Laramie, with the view of watering several thousand acres of that rich and beautiful valley.

Dairying is a legitimate and very profitable branch of husbandry that can be carried on without irrigation; and, with our most nutritious grasses able to produce a superior quality of either butter or cheese, it is rather surprising that more of our people have not followed the example of the enterprising farmers on Smith's Fork and other branches of

Bear River in Southwestern Wyoming, who are giving attention to the making of butter with a high degree of success.

NON-MATERIAL RESOURCES.

The resources of a country are not wholly of the tangible sort. It may be rich in minerals, forests, lands, waters, and manufacturing capabilities, and yet be seriously wanting in essential conditions of a comfortable and happy existence.

A pure and invigorating atmosphere, equability of temperature, proper distribution of heat and moisture by seasons, a cheerful sky, and attractive scenery, can none of them be weighed in the balance or measured in the bushel; but yet each of them has a very important bearing on the health, happiness, and prosperity of a people.

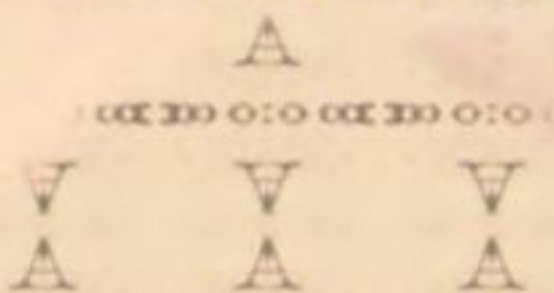
HEALTHFULNESS OF CLIMATE.

The general salubrity of Wyoming may be considered as fully established. Meteorological observations, as far as taken, indicate it, and experience has confirmed it. Reference to the tables under the head of climate (incomplete on account of present inaccessibility of full files of documents) will show that in nearly or quite all the elements requisite to a healthful and agreeable climate Wyoming is remarkably well endowed.

The temperature—that element of climate which most directly and appreciably relates itself to personal comfort as well as general health—is much more equable than in most sections of our country. It sometimes, that is, once in years, reaches a low point in winter, and again a high point in summer. But, taking a series of years together, it shows a very moderate record. Going back to the period of five years between 1850 and 1855, during which observations were taken at Fort Laramie, for example, we find that in one winter of extreme cold throughout the country (the mercury falling below -30° even in Southern Ohio) it descended to -29° at Fort Laramie; also that in one season of intense heat the mercury at Fort Laramie rose to 104° Fah. But, scanning the record as a whole, it appears that during the other years the maxima were 94° , 98° , 91° , and 100° ; while the minima were -24° — 9° , -14° , and -22° . The averages for the seasons and for the years further show that these extremes were seldom reported. Thus the spring average for the five years preceding 1855, fractions disregarded, was 46° ; of summer, 91° ; of autumn, 50° ; of winter, 30° . The averages for the five years between 1855 and 1860 were as follows: Spring, 49° , 51° , 51° , 47° , 45° ; summer, 71° , 74° , 71° , 71° , 75° ; autumn, 54° , 47° , 51° , 49° , 48° ; winter, 28° , 24° , 29° , 28° , 28° . During this same period the mean temperature for the whole of each year was: In 1855, 51° ; in 1856, 49° ; in 1857, 50° ; in 1858, 49° ; in 1859, 49° . The mean annual temperature for the five preceding the above-named period showed a general average of 49° .

Passing the period between 1860 and 1870, record of which has not been obtained, we find that the period since 1871 shows a like equability at the city of Cheyenne. In no case during these last seven years did the mercury reach a point above 98° , and rarely during the cold months of December, January, and February, did it fall below -14° ; while the monthly and annual means have shown a desirable moderation.

A peculiarity of much interest is found in the fact that while the monthly season and annual ranges of temperature are thus moderate, the



daily range is very great. The day may be hot during the summer, but it is sure of being followed by a cool and refreshing night. The midday sun does its work of heating the plains and rarefying the atmosphere above them, but at night the air from the mountain heights, cool and delicious, descends in gentle breezes to take its place. The sultry, sweltering nights so common East are never known in this region, nor indeed are sweltering days, for the dryness of the atmosphere prevents that, as in winter, for the same reason, one is unconscious of the cold though the thermometer may show it to be extreme. The barometric record is also very favorable, showing great uniformity.

The amount and distribution, by seasons, of the fall of rain and snow have been to me the most agreeably surprising feature of the Wyoming climate. Unlike some portions of the country which are deluged in one season and parched in another, there is here, first, a more considerable fall than is usually supposed—sometimes as much as 19 inches—and a very satisfactory distribution of it over the whole of those seasons—spring and summer—when it is most grateful and most useful.

Examination of records kept by Army surgeons at military posts, inquiry among medical men of the Territory, and the appearance of vigorous health which meets one everywhere in his travels among the people, all strongly confirm and establish the conclusions reached after a careful examination of the elements which form the peculiar climate of this region, namely, that Wyoming is one of the most healthful portions of the world.

No country has entire immunity from disease-producing causes, however; and as it should be inferred that in a mountain region like this the diseases are somewhat peculiar, I requested Dr. G. W. Corey, for some years a successful practitioner of medicine in this city, and one who has made a scientific study of climate in its relation to health, to prepare for my use a careful statement of the results of his experience and investigations on this subject. The following is his response:

CHEYENNE, November, 1878.

DEAR SIR: In reply to your inquiry with reference to the healthfulness of these mountain regions, and especially Wyoming, I beg to submit the following facts and statements, some of which have heretofore appeared in print. A careful examination of the medical statistics of the Army shows Wyoming to be as healthful as any region of the United States. The following table will serve to show at a glance the relative prevalence of sickness and mortality among the troops in several important regions, deaths from all other causes except sickness having been excluded from this statement.

*Table showing comparative sickness and mortality, from disease, among United States troops in different localities, averaged for five years, from 1869 to 1874. Compiled from the official reports of the War Department.**

Localities by States and Territories.	Average number of troops per year stationed in each locality.	Average number treated in hospital per year for disease.	Average number died per year from disease.	Ratio to 1,000 of mean strength.	
				Treated each year for disease.	Died each year from disease.
Atlantic Coast, from New York to Maine.....	841. 21	1, 486. 90	15	1, 768. 01	17. 83
Arizona.....	1, 168. 32	2, 481. 15	14. 15	2, 124. 14	12. 11
New Mexico.....	954. 79	1, 176. 02	7. 42	1, 231. 70	7. 77
California and Nevada.....	1, 393. 24	2, 212. 60	9. 60	1, 587. 65	6. 88
Pennsylvania, Indiana, and Michigan.....	438. 25	561. 75	2. 65	1, 282. 53	6. 05
Montana.....	622. 74	720. 90	3. 50	1, 157. 62	5. 62
Dakota.....	2, 004. 37	2, 453. 35	9. 55	1, 224. 06	4. 76
Wyoming.....	1, 919. 10	2, 406. 24	9. 05	1, 253. 77	4. 71
Oregon, Washington, and Idaho.....	730. 56	1, 074. 60	3. 40	1, 471. 23	4. 66

* Circular No. 4, War Department, Surgeon-General's Office, Washington, December 5, 1870, and Circular No. 8, May 1, 1875.

It will be noted that the troops of the United States Army are subject to exactly the same conditions and surroundings, and have the same habits everywhere; their food, clothing, medical attendance, and places of abode are more nearly alike than any other class of people. The acute diseases of these mountain regions are the same in many respects that prevail in similar latitudes in the Mississippi basin, modified of course by the very great difference that exists in the climate of the two regions. The most striking peculiarities of this climate are the extreme dryness of the atmosphere and the great daily range of temperature. The season of greatest relative humidity is from October to April, and again from April to October is the season of least relative humidity; the atmosphere of July being the driest of the whole year. The greatest daily ranges of temperature occur during the season of the driest atmosphere. These climatic conditions seem to have a controlling influence upon disease, catarrhal affections prevailing most during seasons of greatest humidity of the atmosphere, while diseases of the bowels, such as diarrhœa and dysentery, prevail while the air is driest and the greatest daily ranges of temperature occur. Catarrh, or, as it is properly called, cold, is the most common disease here, as it is everywhere in this latitude. Quinsy is very prevalent, and embraces much the larger proportion of all the cases of sore throat. While catarrhal affections of the upper portions of the air-passages are extremely common, inflammatory diseases of the lungs, such as bronchitis, pneumonia or lung fever, and pleurisy, are extremely rare. Intermittent fever or ague never occurs here, except in persons who have lately arrived in the country from malarious districts, either East or West. Biliousness, or "bilious attacks," are extremely common, and prevail most during the spring and summer months, and are speedily cured by remedies that promote the action of the liver. All continued fevers are popularly designated as "mountain fevers"; they are, however, genuine remittent and typhoid fevers, modified in some important respects by this climate, and prevail most in autumn and early winter, following dry summers, but may occur at any season of the year. These fevers are not as prevalent nor as fatal here as in the regions east of the Missouri. Rheumatism and neuralgia are not very common, and seem to prevail epidemically. More cases of rheumatism have occurred in this place (Cheyenne) during 1877 than occurred in eight years before. Child-bed fever occurs rarely, and mothers recover from confinement rapidly and successfully, while children born here are extremely fine, well-developed, and healthy. Scarlet fever and diphtheria have never prevailed epidemically in Wyoming, except in one instance a quite malignant form of scarlet fever prevailed in Laramie City in 1873. Diarrhœa, dysentery, and cholera infantum, while they occur here among children, have never proven to be such severe scourges as they frequently do in the regions east of the Missouri.

WYOMING AS A RESORT FOR INVALIDS.

I come now to speak of Wyoming as a resort for invalids, especially those suffering from diseases of the respiratory organs. If I was called upon to select a climate well calculated to benefit invalids suffering from any particular malady, it would seem the most natural thing in the world to select a region where that particular malady or the class of diseases to which it belonged were least prevalent, and where climatic conditions prevailed best calculated to prevent its occurrence. The climate of North America is rough and harsh compared with that of Europe, notably so on account of its sudden changes and great fluctuations of temperature in short spaces of time. The opinion has long prevailed that severe and sudden changes of temperature played a most important part in the production of diseases of the lungs. Such, however, is found not to be the case, unless these sudden changes are accompanied by great relative humidity of the atmosphere. The correctness of the latter opinion is constantly verified in this country, where we see persons who have weak lungs spending most of their waking hours in the open air without regard to winds or weather, and suffering no inconvenience, but, on the contrary, being constantly improved in health. The great daily oscillations of temperature are more than counterbalanced by the dryness of the atmosphere and other climatic conditions that exist here. Just what it is that makes up these other conditions it may be difficult to say. It may be an excessive amount of electricity. It may be ozone, or an increased amount of oxygen, or diminished pressure of the atmosphere. It may be found in the perfect freedom of the atmosphere from noxious vapors of the lower altitudes, or the clear, pure, unobstructed light of the sun. It may be found in that antiseptic property which is known to exist in the air of these regions that heals wounds rapidly, and prevents the flesh of slain animals, when exposed in the open air, from rapid decay. It may be any one or, as I suspect, all these combined that produce tonic air.

The fact that the extremely rough, harsh, changeable climate of New England produced greater ratios of consumption than almost any other long since led to the conclusion that a climate as nearly the opposite of that—mild and equable—would be the one most likely to benefit consumptives. Such climates, however, are found not to possess tonic properties, such as I have just spoken of, but, on the contrary, are enervating,

and the benefits anticipated from them have not been realized. I am of the opinion that the influence of this mountain air upon the lungs, directly or locally, is not as important as the profound change it produces upon the whole system during the process of acclimation, giving new life and new energy to constitutions that appeared to be shattered and broken down. It acts as a slow and gentle stimulant and tonic to the nervous system—the center of life, and through it upon all the functions of the body.

Consumption.—This terrible scourge of the human race unquestionably originates in imperfect or faulty nutrition. This defect may be either hereditary or acquired. A tendency to consumption may exist during a long life and not be developed, because of the correct habits of the person having this constitutional defect. And again, consumption may be developed in a person having no constitutional taint—it being brought on by poor diet, long-continued transgression of hygienic laws, or residence in an unhealthy, depressing climate, or poorly-ventilated dwellings. In view of these facts, the prevention of consumption becomes an important consideration. For all persons who are predisposed to consumption these regions offer a more certain lease of life than any other on this continent. Persons whose habits of life do not allow or compel them to fully expand their lungs in a pure atmosphere—pale, thin, bloodless clerks, or those of sedentary habits, with hacking coughs; nervous and dyspeptic persons, children with narrow, stooping shoulders, flat breasts, and impaired digestion—all these should seek the mountains, if possible. The light air of these elevated regions necessitates full breathing. Every nook and corner of the lungs is forced into activity. The chest becomes full and round, the stooping shoulders straighten up, the breathing capacity becomes greater, the blood flows more rapidly and freely through the lungs and is more perfectly purified or aerated. These people will find no occasion to devote a certain amount of time every morning or evening to dumb-bell exercises and spasmodic efforts to inflate their lungs. They will find that this exercise goes on all through the twenty-four hours of the day and night; that it is involuntary and not fatiguing; that it is constant and natural, and infinitely more beneficial than over-exertion for a short time each day at dumb-bell and gymnastic labors. All such persons as we have mentioned above will find their appetites and digestion improved, their weight increased, and their physical and mental energy greater than they have ever known them before.

Developed consumption.—After consumption has been developed the question arises whether highlands or lowlands are preferable to relieve the sufferer and prolong his existence, or cure him. The extent to which the disease has advanced; the amount of the lung-substance that has been destroyed or rendered useless, and the degree of general emaciation that has taken place, must be the guide in deciding whether the sufferer should go to the highlands or lowlands, or remain at home and die among his friends. As a rule, hemorrhage from the lungs is the first occurrence that fully settles the question in the minds of the patient and his friends as to the true nature of his disease. It is looked upon as a symptom of seated consumption. We have seen a great many persons who, frightened by this occurrence in their cases, have left homes in the East and come here at once, and at least nine out of ten of them have been benefited, and in many of these cases to my certain knowledge most remarkable cures have been effected. I should, then, as a rule, advise all persons as soon as hemorrhage from the lungs has occurred to come to the mountains as soon as possible. After softening of tuberculous deposits in the lungs has occurred, involving any considerable portion of those organs, the sufferer should not be brought to these elevated regions, as he will only hasten the fatal termination by so doing. Quite a number of these unfortunate people who have been on their way to California, over the Union Pacific Railroad, have died in their seats while passing over these elevated regions. Chronic inflammation of the lungs, chronic pleurisy, chronic laryngitis and bronchitis are speedily cured by a residence here, unless they exist as complications of advanced pulmonary consumption.

Asthma.—It may be said of these regions that they are the paradise of asthmatics. An uncomplicated case of asthma was never seen here that was not either cured or very much benefited by a residence in these regions. Hundreds of the very worst cases have come to Wyoming, both from the Atlantic and Pacific coasts, and the longer they reside here the freer they become from the disease. Persons of advanced age are as uniformly benefited as those that are younger. Asthmatics who have organic disease of the heart may often stay on the Great Plains, in the elevations of from 2,000 to 4,000 feet, such as the regions around the Black Hills, with great relief from their asthma and slight inconvenience from their heart trouble.

As a rule, persons suffering from organic disease of the heart, like those in the advanced stages of consumption, should avoid these highlands and remain nearer the sea-level.

Emphysema.—As a rule this disease seems to be benefited by long-continued residence in high regions. One case that I have seen occasionally for seven years past remained perfectly free from the disease while living for two years at an altitude of 8,000 feet, but on taking up his abode at 6,000 feet elevation has had an attack about every six months, lasting from ten days to two weeks.

Chronic nasal catarrh.—This is an extremely common disease in these dry regions. Persons afflicted with it coming here from the East are about as often made worse as better. The evaporation from the surfaces of the mucous membranes of the nose, caused by the currents of dry air passing in over them at every respiration, keeps them on a constant strain to secrete moisture sufficient to lubricate their surfaces, and an extremely unpleasant feeling of dryness in the nose is experienced by new-comers for some time on this account. This form of catarrh is a very manageable disease except when it attacks persons of feeble constitution.

Those suffering from general debility or nervous dyspepsia are almost certain to be cured by a residence here for a sufficient length of time to become acclimated.

Respectfully, your most obedient servant,

GEO. W. COREY.

Hon. JOHN W. HOYT,
Governor of Wyoming.

SCENERY.

Wyoming scenery is a subject for poet and painter. One sees much of the poorest of it in traveling over the great Pacific Railroad, and some that is sure to enkindle his enthusiasm. It is much to live in the presence of beautiful and magnificent surroundings, for nature at her best exerts a most refining and elevating influence. *Æsthetic* and moral culture are the priceless product of her teaching.

Many a Wyoming herdsman grazes his cattle, and many a shepherd watches his flock in the midst of scenery that would challenge the genius of a Turner or Salvator. He is the better for it, and the children who play about his cabin door and gambol on the bank of the beautiful stream flowing past will be the better citizens for these silent lessons. I cannot here attempt even to locate these glories of the landscape; one finds them on every mountain side and in nearly every valley. When better known they will make of Wyoming, including that "wonder-land" the great National Park, a region of resort for pleasure-seekers from every part of the world.

PART II.—CONDITION AND PROGRESS.

POPULATION.

The present population of Wyoming is variously estimated at 20,000 to 30,000. The correct number probably lies about half-way between the two. The entire vote of the Territory at the late election will foot up very nearly 7,000.

DISTRIBUTION, OCCUPATION, ETC.

A very large proportion of the population consists of former residents of the New England and Middle States. Of the foreign population (not large) the majority are German. In the coal mines at Evanston and Rock Springs, and in the Atlantic City gold mines, are considerable numbers of Chinese. There are also some persons of this nationality at several of the larger towns along the railway; the whole number in the Territory aggregating four or five hundred.

The great body of the population occupy the sixty-nine towns, villages, and stations along the Union Pacific Railroad. The remainder are found at South Pass, Atlantic, Miner's Delight, Lander, all in the region of the Wind River Mountains; at Centennial, Douglass Creek, Snowy Range, and other mining points in and about the Medicine Bow and Seminole Mountains; at the several military posts, in the settlements on the Bear River and its tributaries in Southwestern Wyoming, and on numerous

isolated ranches throughout the southern and middle portions of the Territory.

As may be inferred from what has already been said in discussing the resources of the Territory, the two great branches of industry are the pastoral and mining. The bulk of capital employed is invested in live-stock, though much of the population and a good deal of the mercantile business are in some way connected with the mining industry, manufacturing, and the business of transportation. The Pacific Railroad Company alone has on its pay-rolls and remotely connected with its extensive operations—machine-shops, rolling-mill, stations, and mines included—quite a per cent. of the laboring population. These, of course, occupy the towns and villages along the line.

Of the capitalists engaged in the stock business and mining, very nearly the whole number also live in the towns, even though their mines or ranches should be two or more hundred miles in the interior. The herders, and they who, as foremen, have immediate oversight of the herds and flocks or mines, live on the ranches or in the camps, of necessity; but the proprietors, with few exceptions, reside upon the railway, and with their teams go and come as interest demands. In the towns they are the men who, with the merchants, prominent men of the trades, and professional men, mold society and govern in public affairs. Hence it is well for the Territory that they are almost universally men of character, intelligence, and foresight; men who, having the beginnings of fortunes at the East, have come out here to enlarge them more rapidly than was possible there; men of former means and position, who during the financial storms of these recent years suffered partial wreck and sought a field wherein to recuperate their failing fortunes; young men, members of first families, who, feeling the pinch of close quarters in New York, Philadelphia, and Boston, and desiring to breathe the freer air of the great West, have taken a sum, modest or large, as convenient, and are here for the threefold advantage of increase in wealth, invigoration of health, and the indescribable charms of a frontier life under sunny skies and in the midst of sublime surroundings; ambitious graduates of Dartmouth, Yale, Harvard, and other colleges, who were willing to postpone entrance upon their life pursuits until they had first felt the inspiring touch of nature and laid a foundation for future independence; men also of special culture in literature or science, who, for the time at least, have left the unremunerative life of research that they may divide a few years of time between the pleasures of private study and the building of a little fortune. All these are here, and for the greater part are realizing their most sanguine expectations.

The other classes are common to all communities, though an unusually large proportion of those who compose them are characterized by a special energy, tact, and enterprise.

As a matter of simple justice to a people who are still suffering, in the judgment of a remote public, for the sins of unworthy forerunners, whom they long since succeeded, for this reason and none other I deem it proper to represent the present population of Wyoming as being especially characterized not only by courage, keenness, enterprise, and energy, but also by a most commendable love of good order, and by a liberality of sentiment rarely found in any community.

PRESENT STATUS, MATERIAL AND SOCIAL.

The material achievements of the people have been incidentally illustrated while describing the resources of the Territory. It has thus ap-

peared that, beginning with nothing nine years ago, when the Territory was organized, pastoral industry has accumulated herds of cattle numbering about 300,000 head; of sheep numbering 200,000, and of horses a number not accurately known, but not less than 10,000 to 20,000; that numerous mines of gold, silver, iron, and copper have been opened; that mines of coal are now yielding nearly 300,000 car-loads annually; that agriculture has also made a beginning, so that 42,638 acres of land were this year returned by the assessors as "improved"; and finally, in this very general enumeration, that, according to an assessed valuation, hardly more than 50 per cent. of the real value, the Territory now has more than \$10,000,000 in real and personal property—has in fact, I might venture to say, nearly or quite twenty millions. In this valuation are included some public buildings, as well as many private ones, that would do credit to much larger towns at the older East.

SOCIAL CONDITION.

The social condition of the people is no less prosperous. The towns and villages are remarkably well improved, considering the newness of all things, and some of them present that look of thrift and comfort which characterizes the best of Eastern towns. Good supplies of water have been obtained at Cheyenne, Laramie, and Evanston; and Rawlins is in the way of like improvements. Laramie City is indeed furnished with a hydrant system, water being brought from a considerable height above and behind the town, and is beginning to present to the eye shaded streets and velvet lawns. Cheyenne also has mains in some of the principal streets, with hydrants for use in case of fire, an elevated artificial lake supplying the water. The other larger towns will not be long in following this most praiseworthy example.

The educational institutions and instrumentalities have been a surprise to me. The general school system is one of the best in the United States—resembling that of Michigan, under which all the grades are so related and correlated that each lower one becomes a proper stepping-stone to the one above it—and the public graded schools of Cheyenne and Laramie Cities are really among the best of their class in the country, being well directed and admirably taught.

The school buildings are also excellent; the new one at Laramie City is especially fine. They afford gratifying evidence that the people are not satisfied with a good school code, but are ready to pay their money freely for the comfort and culture of their children.

Attendance upon school is obligatory, teachers are liberally paid (male and female alike for the same service), and public provision is made for county superintendence and for regular teachers' institutes. At present the general superintendency is vested in the Territorial librarian; but after the field of labor has sufficiently enlarged to render it necessary, a superintendent will give his entire time to the work.

As yet there is no institution of higher grade than the high-school department of the public school. Steps will soon need to be taken for the establishment of a college. And this leads me to express my regret that provision has not been made by Congress for allowing to Territories, while in their Territorial condition, some of the advantages in aid of education with which they are favored when they have been admitted into the Union as States.

Besides the Territorial library, which has about — volumes, and a considerable number of quite large private libraries, very generously open to friends and neighbors, there are in this city, in Laramie City,

and in Evanston, very excellent beginnings of public libraries. Plans are now formed to give a vigorous development to these very important enterprises, and to carry the work forward until every village has at least what in time will grow into a valuable collection of books. There are also, in connection with the libraries at Laramie City and Evanston, well-furnished and well-conducted reading-rooms that are much frequented and are doing excellent service in the way of attracting young men from the haunts of vice or places of trifling amusement to these means of intellectual culture and social refinement. Cheyenne has also a reading-room under the auspices of an association of devoted and self-sacrificing ladies.

The newspapers of Wyoming now number seven, as follows: two, both daily and weekly, at Cheyenne; one, daily and weekly, at Laramie City; one weekly at Rawlins, one weekly at Green River City, and two weeklies at Evanston.

Liberal provision is made for the blind, the deaf and dumb, and the insane, by sending them to the best institutions of the country at the public expense.

Penal institutions belonging to the Territory are limited to the county jails, which are new buildings, connected with handsome brick court-houses, and which appear to be well managed.

The penitentiary at Laramie City belongs to the United States Government, and accommodates both United States and Territorial convicts. The building is a good one—one wing of the projected building—constructed of stone. The institution is well managed by the United States marshal, with the aid of a warden of his own appointment. Standing on the very bank of the Laramie River, whose fertile valley affords the means of producing large crops of potatoes and other vegetables (this year without irrigation), and within a few rods of both a valuable stone quarry and a bed of superior clay for brick, it should be able to realize and does realize a considerable income from the labor of the convicts. The Government of the United States receives Territorial convicts at a charge of \$1 per day for board and safe keeping. But, inasmuch as the Territory is able to arrange with the State of Nebraska for the care of its prisoners in the State penitentiary at Lincoln for 40 cents per day, transportation to the prison included, but few of its prisoners are confined at Laramie. The interests of the Territory, so far as the penitentiary is concerned, are represented by the governor and three other commissioners.

From the report of the warden, just furnished by request, I learn that the number of convicts at present confined there is as follows:

Number of Territorial prisoners	16
Number of United States prisoners	3
Number of prisoners temporarily held for safe keeping	5
Whole number	24

At Laramie City the Catholic church, with the help of \$3,000 from the Territorial legislature, has erected a handsome building at a cost of \$12,000, for a hospital, to be under the management of the Sisters of Charity, and open to the needy of all classes.

Churches representing the leading denominations are formed in all the larger towns, and are well attended.

Law and order prevail generally, and among citizens to a degree that would do honor to New England communities.

Owing to the sparseness of the population in many portions of the Territory traversed by mail-coaches, especially in the region between

Fort Laramie and the Black Hills, and in that north of Fort Fetterman, through both of which property of much value must frequently pass, the public have suffered much during recent years, and especially during the past season from robberies committed by roving bands of desperadoes. In a few instances they have even attacked railway trains. No pains have been spared to arrest these outlaws, commonly known as "road agents", and, with the help of the Federal Government, the Union Pacific Railroad Company, the Cheyenne and Black Hills Stage Company, and the county authorities, some of them have been brought to trial, while others have been killed in the efforts to capture them. It is hoped that they are now pretty well broken up, though mail robberies still occur occasionally.

POLITICAL DIVISIONS, INSTITUTIONS, AND LAWS.

Wyoming at present embraces five organized counties, each extending north and south across the entire Territory, to wit, Laramie, Albany, Carbon, Sweetwater, and Uinta, named in order from east to west. These divisions were established by the first legislature in 1869. By an act approved December 8, 1875, the northern portions of Laramie and Albany Counties were set off as the counties of Crook and Pease, respectively, with provisions for their organization when petition therefor should be made by five hundred citizens resident in either one of them. As yet, however, these counties are without organizations, being almost wholly unoccupied.

The legislature consists of a council of thirteen members and house of representatives numbering twenty-seven members. Council and representative districts are allowed to counties in proportion to population, each county having as many councilmen and representatives as it contains thirteenths and twenty-sevenths, respectively, of the whole population of the Territory; in case of fractions less than one-thirteenth and one-twenty-seventh, the highest fractions being represented by a member in each house as a member at large for the whole Territory.

The legislature convenes on the first Tuesday of November every second year. Its session is limited by a law of Congress to forty days. The next session will be held in 1879.

The biennial election for choice of members of the legislature is held in years alternating with the general election, and on the same day of the year.

The general election, so called, is for the choice of the following officers: Delegate in Congress, sheriff, county clerk, probate judge, county treasurer, prosecuting attorney, county commissioners, county superintendent of schools, coroner, surveyor, assessor, justices of the peace, and constables. It occurs on the Tuesday next after the first Monday of November every second year.

The elections are held in "precincts" located by the county commissioners of the several counties.

The provisions relating to qualifications of electors, as contained in the general law passed by the first legislature and approved December 10, 1869, were as follows:

SEC. 18. Every male person above the age of twenty-one years who shall have been a resident of this Territory ninety days prior to election, and who is a citizen of the United States, or has declared on oath before a competent court of record his intention to become such, and has taken an oath to support the Constitution and Government of the United States, shall be entitled to vote and be eligible to any office within said Territory.

SEC. 19. No person under guardianship, *non compos mentis*, or insane, shall be qualified

to vote at any election; nor shall any person convicted of treason, felony, or bribery, unless restored to civil rights; nor shall any person who shall have made or become either directly or indirectly interested in any bet or wager depending on the result of any election at which he shall offer to vote be permitted to vote at such election.

Subsequently, though passed during the same session and approved on the same day, a law was enacted which reads as follows:

SECTION 1. Every woman of the age of twenty-one years, residing in this Territory, may, at every election to be holden under the laws thereof, cast her vote. And her rights to the elective franchise and to hold office shall be the same under the election laws of the Territory as those of electors.

An effort was made at the next session of the legislature to repeal the law extending to women the right to vote and to hold office, and a bill for that purpose was passed, but failed of the governor's approval. Since that date there appears to have been general acquiescence in the participation of women in the elections. Their influence at the polls is admirable, as I can testify, after careful observation during the recent general election (when there was unusual activity), and it is urged by leading men, in position to know, that it proves also effective and beneficial upon all legislation in aid of good order and of public morality. Woman suffrage in Wyoming may therefore be considered an established success in so far as the general interests of the public are affected thereby.

I deem it proper to further say, while alluding to the legislative department of the government, that, while the inexperience of law-makers has left much room for improvement, the legislation has, in the main, been characterized by a liberality and an intelligent foresight that do credit to the representatives of the people.

Codes of civil and of criminal procedure are in force, the former modeled after the Ohio code, except that it separates common-law procedure from procedure in chancery, the latter compounded of the criminal codes of Ohio, Iowa, Wisconsin, Colorado, and possibly still other States.

PART III.—LEADING WANTS.

TO BE KNOWN.

Perhaps the first present need of Wyoming is to be known—to have its great natural advantages made patent to the world. Once appreciated, they would attract large amounts of capital; this would insure a rapid influx of an industrial population necessary to the working of mines, the care of stock, the improvement of farms, the building and working of mills and factories, and the Territory would thus receive an impetus that would carry it forward in a grand career of development.

Hitherto but little has been done in this behalf. Neither they who were prospecting for rich mines of the precious metals, nor such as were rapidly amassing fortunes in the stock business, have felt any special interest in making public the rare opportunities they were themselves enjoying; in fact, the natural desire to avoid active competition has kept them from doing this very thing. Again, there have been almost no lands in market, and practically few owners of lands or lots, except the railway company, and hence few who were influenced by any motive of gain through sales of real estate to publish the claims of the Territory.

As the whole nation has an interest in the progress of every part of the country, and especially in the growth of the newer regions where the great bulk of the property belongs to it, where especially there are believed to be vast stores of mineral wealth, it would seem to be a wise thing for the government to employ the means requisite to the ascer-

tainment of their resources, and to the widest diffusion of the knowledge thus gained. Very much of this has been done and is now doing by the government. The scientific explorations instituted by Congress and carried forward for many years at the public expense have done much to make known the character and resources of this Rocky Mountain Region. It is gratifying to know that a work like that done for Colorado has been commenced in Wyoming. It is highly important that the survey now in progress should proceed, without interruption, to an early completion. It will, on the one hand, correct any present overestimate of natural resources in some localities that might otherwise result in useless expenditures, and on the other lead to valuable discoveries in sections of country whose hidden treasures are at present unsuspected.

FURTHER ENCOURAGEMENT TO THE AGRICULTURAL AND GRAZING INTERESTS.

The agricultural improvement of the Territory is considerably retarded by the inability of those who would establish themselves in many of our valleys to fix the boundaries of the property they would claim and purchase. In cases where two or more persons would build near each other, they severally make their improvements without any certainty of being able to hold them. Naturally, under these circumstances, improvements will be indefinitely postponed, or, if made, will be temporary and of but little worth. The present assignment of funds to the land department representing the government in this Territory is very inadequate. That is certainly a strange sort of economy which refuses to open the public lands to settlers who desire to improve them, simply because it would cost a few farthings per acre to fix a boundary line.

It is also worthy of consideration whether the government could not, in consistency with the general interests of the country, do yet more in aid of the improvement of what are known as "arid lands" by means of irrigation. The act of March 3, 1877, being "An act to provide for the sale of desert lands in certain States and Territories," was an important step in the right direction, but does not appear to be sufficient to meet the necessities of these Rocky Mountain regions. The water canals and ditches often require to be cut for long distances and at so much expense that individual enterprise is insufficient. The making a farm in such a region is a very different thing from making one on the virgin prairies of the Mississippi and Missouri valleys. And yet the price to be paid for these lands of the "desert" is the old price that was paid for those valley-lands of the great Middle West; while there is no grant corresponding to that of "swamp and overflowed lands," which in the Northwestern States, so called, have become sources of great revenue for the improvement of lands and for other purposes. Would there not be both propriety and public advantage in making grants of land to these inchoate States, the Territories, on terms and conditions at least as liberal as those of the grants of swamp lands, and of lands for canal and railroad improvements, accorded to the older and less needy commonwealths?

The grazing interest suffers at present severely from the occasional burning over of large areas of pasture lands included within the cattle ranges. Where such waste occurs through the recklessness of travelers, hunters, and other individuals, the remedy is not easy; but railroad companies may be required, and should be, to prevent its occurrence as

a result of sparks thrown off from their locomotives. That every smoke-stack shall be covered with a screen, and that furrows shall be plowed on either side of the railway across the grassy plains, these are easy demands to comply with, and yet such compliance would annually save the owners of herds from much embarrassment and large pecuniary loss. I am aware that these are matters which do not require Congressional action, but this incidental reference may be useful nevertheless.

The time is near when, in the favorite pastoral districts, the encroachment of herds and flocks upon each other's ranges will make it necessary for Congress to enact a special law applicable to the plains, that will enable proprietors of stock, on reasonable terms, to acquire either ownership in considerable bodies of pasture lands or renter's right to its exclusive use. Such a law even now would be an advantage to this interest in some localities. After a little it will have become a necessity.

PROTECTION TO THE FORESTS AND ENCOURAGEMENT OF TREE-PLANTING.

The destruction of the forests by fire demands serious attention. Comparatively speaking, the destruction by cutting is nothing at all. On my recent visit to the splendid forests which cover the Medicine Bow Mountains for hundreds of square miles, so that standing upon some lofty summit one sees no end to the thick growth of timber, I journeyed miles through burnt districts; the recently tall and handsome evergreen trees lying prostrate in inextricable confusion, or standing brown and stark in solemn waiting for some ruthless wind to lay them low; this, the work of careless miners, hunters, or teamsters, who build a fire to cook a meal and leave it to its work of destruction when done, is a most serious evil; for it does not end with the destruction of vast areas of full and half-grown timber. I have observed that in many cases where the fire had swept through the forests, deadening everything in its course, innumerable young pines have sprung up and are having a thrifty growth. Immunity from fires would soon insure to us a new forest in place of the one destroyed; but with the present recklessness and improvidence these millions of tender plants have but one chance in many to attain the dignity of full-grown trees. How is this evil to be cured? Stringent laws may be passed, but the difficulty of getting them enforced is very great. Laws, if not so wholly impracticable as to become a dead letter and be quickly forgotten, would at least exert an educating influence and thus prove useful in some measure; nor is it impossible that large rewards for the conviction of guilty violators would serve as a caution and restraint upon such as are uninfluenced by higher considerations. Certain it is that the preservation of the forests of this mountain region from destruction by fires as well as from depredations prompted by cupidity should receive the careful attention of both national and territorial governments.

It would also be well if the local governments should add to this such encouragement as may be afforded in aid of tree-planting wherever the conditions warrant the undertaking. A little pains and small outlays of money would soon effect a most desirable transformation along some of our occupied treeless valleys, and in all cities and villages favored with the possibilities of sufficient irrigation.

FURTHER TRANSPORTATION FACILITIES.

The settlements already formed, the improvements made and developments begun in this whole region, are due to the construction of that

great national highway, the Union Pacific Railroad. Without it Wyoming would have been as wild and unproductive to-day as it was one hundred years ago. The Congress of the United States did a wise thing when it formed the plan to connect the two oceans and bind the existing and prospective States of the Pacific coast with bands of steel to the great body of the Union, while at the same time opening a channel for the commerce of the world. How great soever the cost, the Union and Central railways across the mountains have proven themselves of vastly greater worth than the treasure they have cost. But they should not on this account be managed with sole reference to an international or even a transcontinental traffic. It should be the policy of these great corporations, by the lowest possible rates of transportation, and by guarantee of such rates for a period of years, to encourage the investment of capital all along the line of their roads and throughout the vast regions of country tributary to them, in enterprises that look to industrial development. Such a policy, though it should bring no immediate returns, would subtract nothing from the profits now made on the through business, and would result in the early creation of local industries and a consequent local traffic that would eventually, and at no distant day, be a far greater source of revenue. Such a policy in railroad management is like that of the husbandman, who with great labor prepares the soil, plants the seed, and carefully waters and nurses the tender plants, that he may at last reap a bountiful harvest.

I am glad to know that such a policy has the hearty approval of at least some members of the board of direction of the Union Pacific, upon whose liberality of management the future prosperity of this Territory so very largely depends, and it cannot be doubted that the practice of the company will more and more conform to these views. But with the utmost that can be done by this railway, much will still remain to be done in the way of reaching the interior.

A railroad from Cheyenne to the Black Hills lying on the border line between Wyoming and Dakota has been projected for some time, and is greatly needed both by this city and Territory and by the large gold-producing region to which it would furnish the easiest and most natural outlet. The Black Hills region is now so far isolated that great loss is sustained by reason of the great labor, expense, delay, and risk incident to wagon transportation across a distance of two to three hundred miles, whatever the route adopted. It is generally conceded that the route this way is more feasible than any other, and that while communication by rail would aid in the development and growth of Wyoming, it would still more promote the advancement of the Hills region. Much of all that has been accomplished there has been done through the energy and enterprise of citizens of this Territory, and there is to that extent, as well as on account of a mutuality of interests on the part of both sections, a natural bond between them. Besides this desirable connection of the Black Hills with this city, a line so constructed via Fort Laramie, the most direct and feasible route, would constitute a first link of one hundred miles, or nearly that, in a future chain of communication between Cheyenne and the occupied portions of Montana via Fort Fetterman, old Fort Reno, new Fort McKinney, and that whole magnificent section of Wyoming lying east of the Big Horn Mountains. For the mean time, until the construction of such a line of railway through to Montana, it is important to the interests of this Territory, and no less so to the Government of the United States, whose supplies to the military posts named must go from either Cheyenne or Rock Creek to Fort

Fetterman, and thence northwestward over that route, that something should be done by the Government of the United States to convert the present trail through to Fort Custer (Old Fort C. F. Smith) into a good military wagon-road and mail-route. Having quite recently passed over that trail, I am able to speak with great positiveness of the probability, under favorable conditions, of the early settlement of the country all along its course, as well as of the entire feasibility of making a good wagon-road, with but little expense. The natural road-bed is almost everywhere excellent, and with changes at points, to give easier grades, with cheaply built though substantial bridges across many streams, and a new route of some 17 miles this side of Fort McKinney, to avoid the Dry Fork of the Powder, which at some seasons is almost impassable, this road could be converted into a very important highway. And it would hardly be too much to say that the saving thus made by the government on its freight contracts would pay the whole cost of such improvement in one, two, or three years.

In like manner the settlement of Western Wyoming would be greatly promoted by the construction of a thoroughly good wagon-road from the Union Pacific, by some practicable route, to the Sweetwater mining region, and thence along the east side of the Wind River Mountains, up the Wind River to the Yellowstone National Park, and thence down the Yellowstone River from its source to Fort Ellis, in Montana, just beyond the Wyoming border. At present there is in fact a wagon-road and stage-route from Green River City, on the Union Pacific, to Camp Brown, via South Pass, Atlantic City, Camp Stambaugh, Eagle Ranch, Lander City, and North Fork (on the border of the Indian reservation), to Camp Brown. And there is a pony-trail thence up the valley of Wind River and across the headwaters of the Snake River to the National Park. But the upper portion of the trail is impassable for wagons, and the road to Camp Brown very much needs improving. In this case, also, there are several reasons why the Government of the United States should take in hand the proposed work.

First, the valleys of the Sweetwater, Big Sandy, Beaver, Popo Agie, and Wind River, all of which would be served by it, are susceptible of agricultural improvement, and though at present to some extent occupied by farmers cannot make much progress without the means of easier communication with the railroad. This in addition to the already familiar fact that the road in question passes through the most important gold-mining regions in the Territory, whose development would be promoted to a large degree by the improvement.

Secondly, this is also a route through military posts. Camp Stambaugh is now without any considerable number of troops, but Camp Brown, on the Shoshone and Arapahoe Reservations, will necessarily have at all times a considerable garrison, and can only be maintained at great cost for the transportation of supplies. Besides which, the supply of the reservation requires that stores in large amounts should be wagoned to the agency.

Thirdly, the National Park, now practically inaccessible, would thus be cheaply and very satisfactorily opened to the world—opened, too, by a route shorter than any other, and one that of itself would well reward the journey.

Fourthly, the road proposed would open a very desirable line of communication between the country along its line and the settlements in the neighboring Territory.

INCREASED SECURITY FOR LIFE AND PROPERTY.

Much has been accomplished through the agency of the Interior and the War Departments during the past two or three years to save the people of this Territory from the horrors of Indian wars and massacres. The removal of the Sioux from their former hunting-grounds in North-eastern Wyoming, the removal of other tribes and portions of tribes to regions far remote, and the pacification of those allowed to remain, have very greatly lessened the danger to be apprehended by settlers. Indeed, during the past season more has been feared and suffered from bands of white desperadoes infesting certain lines of travel, especially the line between Cheyenne and Deadwood, and recently between Forts Fetterman and McKinney, than from all Indians, whether within or without our borders. The nature and extent of these depredations have already been alluded to under the head of "Social Condition of the Population," and I only mention the matter in appropriate connection here by way of better representing the entire immunity of Wyoming during the past year from those Indian troubles which have so afflicted some of the neighboring Territories. I may also here take occasion to express my own high appreciation of and the thanks of the people of this Territory in general for the very prompt and energetic manner in which the several departments of the Federal Government have responded to our appeals for aid in putting an end to the depredations upon the United States mails during the recent months; likewise, to remark upon that unfortunate piece of recent legislation which so limits the authority of the President as to the use of the Army, that, under its provisions narrowly and strictly construed, the troops of the United States are palsied in the very presence of gangs of armed outlaws fresh from mail robberies, their hands red with the blood of agents of the government who bravely shed it in defense of government property. There is a manifest absurdity in so tying the hands of the Executive that one department of the government is even powerless to assist another in protecting its interests and the interests of the whole people. The new and sparsely settled Territories are so circumstanced as to be in special and imperative need of every assistance the Army can possibly render; and if it is deemed necessary that a law should restrict the use of the Army as a *posse comitatus*, it should at least do so with careful regard to proper discrimination.

As it relates to the Indians now belonging to Wyoming—I mean the Indians occupying the Wind River Reservation—I am able to speak of their conduct during the short period of my acquaintance with them in terms of the highest commendation. Early in the summer much anxiety was expressed by settlers in the vicinity of the reservation on account of reported dissatisfaction among the Indians, and of flying rumors that they were on the point of breaking away from the agency and committing depredations upon the whites. Appeals were made to me for arms, and everything was done that could be to supply them. Having met these demands, I concluded to visit the reservation and see the Shoshones and Arapahoes in their respective villages. This was done in the month of July, after a first general view of the reservation itself, with a view to some idea of its character and resources. Conferences were held as the result, which afforded me very great gratification. Not that the Indians were wholly satisfied with the existing state of things—they were not satisfied. They had, indeed, several complaints to lay before me, begging that I would represent them to "the Great Father" at Washington, and which, it will be remembered, I was prompt to do. But the substance and manner of their complaints deeply impressed me

with the keen intelligence and large capabilities of at least the leaders of those tribes. After spending the best portion of two half days in earnest and close discussion with thirty to forty of the chiefs and principal warriors of each tribe, and nearly a week on the reservation, I came away strongly of the opinion that, whatever the character and condition of other Indians, these were most certainly civilizable.

That this opinion there formed was not the result of a mere enthusiasm incident to such an occasion is evident from the fact the impression then made has constantly deepened until it amounts to a conviction prompting me to this statement and preparing me to volunteer in that behalf any service or sacrifice within my power that may promise practical results. No thoughtful, earnest man could look into the fine, manly faces of those stately chiefs and hear them plead for their people in speeches which, for logical arrangement, force, and elegance of expression, as well as eloquence of manner, would befit the foremost orator of his own race, and not feel a profound desire to bring them and all their people within the pale of civilization.

I have been gratified to learn from the zealous and faithful agent that nearly everything for which these chiefs pleaded then has since been granted them, and that complaints for the time have ceased. It does not appear to me necessary that there should be further difficulty with the Indians now on the Wyoming Reservation. Nor do I believe there will be under an administration so evidently anxious and resolutely purposed to have them treated fairly and justly. There will be need of patience and great painstaking in helping them to rise to a plane of self-dependence. Many of the present generation will never reach it; others will, and with the help of wise direction and much assistance all or nearly all of the rising generation may. Too much must not be demanded of them at first. They may be gradually inducted into simple farming or gardening, and into some of the easier mechanical arts. But they must be helped to start and constantly stimulated and encouraged afterwards. They must not be required to drag poles 20 miles from the mountains with their ponies, for fencing, nor to break the tough sod of their fields at the first plowing. Let the best possible helps be given them, and a majority of the men will even then work into farming very slowly. It is too wholly contrary to their life-long habits. I found that noble specimen of the natural man, Washikie, chief of the Shoshones, hoeing potatoes in a neighboring field, and when I complimented him upon his farmer-like appearance he revealed the secret of his assiduity (the day was very hot and the chief is sixty or more years of age) by saying, "It is well for us to learn to work, and I must teach my people by example." He will accomplish all that a chief admired and beloved could accomplish, but the fruits of his example will be limited.

To teach the Indian the art of raising horses and cattle would not be difficult. He knows much of horses already, and he would soon acquire the herder's art of managing cattle. This pursuit is kindred to the life he has always lived, and he would find it congenial as well as profitable. The Shoshones are already owners of considerable numbers of cattle; but the Arapahoes have led a more nomadic life, and are without property. I respectfully and earnestly suggest that they be furnished with stock sufficient for a beginning, and that no pains be spared to give them an encouraging start in this business.

Independent of the great advantage to be derived by the Indians themselves from this introduction of pastoral husbandry among them, there is one very important reason for it that relates itself wholly to the whites who occupy the surrounding country. It would enable the gov-

ernment without oppressiveness to keep the Indians on their reservation. For, with reasonable aid in the way of supplying articles they cannot produce, it would insure them not only the meat they crave for food, but also that agreeable exercise in the handling of cattle and horses, so like the pleasures of the chase. With the aid of enough bayonets, or possibly by stripping them wholly of their ponies and guns, as some have proposed, they could be kept on their reservation without any of the incidental allurements to which I have here referred. But how utterly dull and dreary the life to which such a policy would consign the average Indian of the present generation, who all his life has enjoyed the full freedom of forest and plain. A policy like that would be abrupt and arbitrary to the very verge of cruelty. Humanity protests against it. The transition should be made gradual.

That Indians assigned to a reservation in order that the country adjacent may be settled and improved by white men should not be permitted to roam over the territory outside of that reservation is a proposition that admits of no argument. The fact that they are friendly does not alter the case. For how is the isolated and practically defenseless settler to know whether a band of red men darting across his cattle-range or up to his ranch, are friendly or not? He cannot afford to be kept constantly on the rack in this way.

Thus far almost nothing has been done towards giving the children of these Indians the advantage of school instruction, though I learn from the agent that a teacher for the Arapahoes has been provided, and that measures are on foot that will insure the early building and furnishing of a school-building. In my judgment, schools for Indian youth in general should be industrial schools, where instruction in the rudiments of learning is combined with instruction in the cultivation of the soil, the care of animals, and in various simple handicrafts; where, likewise, the pupils would acquire the ideas and habits of civilized life. Such a school would cost more money than an ordinary school, but it would yield much larger results. I respectfully commend this suggestion to the attention of the department.

I will not assume to speak for other Indians than those who properly belong to Wyoming. It is possible that certain warlike and irreconcilable tribes could be better managed if wholly under the strong arm of military authority; but as for the Shoshones and Arapahoes now on the reservation here, the conviction in my mind is strong and clear that their advancement will be more surely promoted by a control based on their civilizability and exercised through agents chosen with reference not only to their honesty and business capacity but also to an earnestness of desire for such advancement and special aptitudes for the peculiar and difficult duties assigned them. What appears now to be especially needed is more money for certain auxiliaries in aid of industrial development and general enlightenment—means for the material appointments required and for the just compensation of those who, as agents and their subordinates, are charged with the responsibilities of immediate management.

The foregoing is based, of course, on the assumption that the Indians in question are to remain where they are, though the principles involved are in no way dependent on locality. Believing in the sacredness of treaty obligations, whether wisely or unwisely entered into by the government, I could not for a moment entertain the suggestion of coercive measures for their removal. But if, in harmony with some new policy touching Indian affairs, and in accord with the wishes and interests of the Indians to be affected, the Shoshone and Bannock Reservation, so

called, could be vacated, it is certain that such a result would be hailed with satisfaction by the people of this Territory.

With the further view to an increase of security for life and property in the Territory, measures are now under consideration for a thorough and effective militia organization. The scattered condition of the population, except at a few centers, renders this much more difficult than in the older communities, but it will, nevertheless, be possible to secure the formation of a number of well-equipped companies at different points; so that in case of invasion by Indians—an event not now regarded as probable—or by bands of desperadoes, such as have infested some portions of the Territory during the past season, we shall have a force, independent of the small detachments of regular troops at the military posts, for prompt and vigorous action. If, this being done, the Secretary of War were authorized to cause a detail to be made of officers of the Regular Army to assist the Territorial executive in directing the movements of the militia, so that there might be harmony and full co-operation between the regular and volunteer forces, the Territory would be quite well protected.

In concluding this report I am painfully conscious of its many imperfections. The labor of investigation was continued to so late a date that insufficient time remained for arranging and presenting results. Of this I am confident, however, namely, that as a statement of facts it is worthy of acceptance; for great pains have been taken to insure accuracy, and where there was room for doubt I have been extremely careful to underestimate rather than to overstate. So far as mere impressions and inferences are concerned, they should be received with such degree of allowance as properly attaches to the conclusions of an inquirer who, although anxious to make a faithful representation, has been without the advantage of so much as one whole year's residence in the Territory over which he presides.

With these explanations, and in the hope that it may prove both acceptable and useful, the report is respectfully submitted.

I have the honor to be, your obedient servant,

JOHN W. HOYT,
Governor of Wyoming.

Hon. CARL SCHURZ,
Secretary of the Interior.

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